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ABSTRACT

Preprints of 24 papers presented at a conference, the subject of which was "The Learning of Two or More Languages or Dialects by Young Children, Especially between the Ages of Three and Eight, with Particular Attention to the Social Setting," comprise this report. The six sections of the conference were: Home and Preschool Language Learning; Curricular Patterns in Early Bilingual Schooling; Linguistic Factors in Bilingualism and Bidialectalism; Socio-Linguistic Factors in Bilingual Education; Various Aspect of Child Language; and Planning for the Future. (DB)

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Centre international de recherches
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on Bilingualism

CONFERENCE ON CHILD LANGUAGE

Chicago, November 22-24, 1971

Preprints

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FOREWORD

The idea of this Conference on Child Language had its origin in Stockholm in August of 1970, when Dr Max Gorosch, Executive Secretary of the International Association of Applied Linguistics, asked me whether I would have any interest in helping to activate the Association Commission on Child Language. I agreed to help Mr R.W. Rutherford, Organiser of the Child Language Survey, York University, York, England, to whom the Executive Committee looked for leadership. It was agreed that I would take main responsibility for organizing this Conference and that Mr Rutherford would be responsible for arranging a second conference, to be held in Copenhagen in August of 1972 in connection with the Biennial Meeting of the International Association of Applied Linguistics.

The Center for Applied Linguistics in Washington, the United States affiliate of the International Association, readily agreed, through Dr John Lotz, former Director, and Dr Albert H. Marckwardt, the present Acting Director, to co-sponsor the Conference.

Mr C. Edward Scebold, Executive Secretary of the American Council on the Teaching of Foreign Languages (ACTFL), offered not only to co-sponsor the Conference but to assist materially with the arrangements if the Conference could be held at the same time and place as the Annual Meeting of ACTFL. It was therefore decided to schedule the Conference in the Conrad Hilton Hotel in Chicago on November 22, 23, and 24, 1971.

II

A final generous offer of co-sponsorship came from Prof. Henri Dorion, Director of the International Center for Research on Bilingualism, who offered to have the Center prepare a Preprint of papers received in time as well as to publish the Conference Report in cooperation with the Presses Universitaires, Université Laval, Quebec.

Some twenty-four papers, out of the thirty promised, have been submitted and are included in this Preprint, which will be distributed to those participating in the Conference and to preregistrants. It is hoped that the remaining authors can distribute copies of their papers in time for them to be read critically before the meeting. On this will depend in part the success of the meeting, for papers will not be read there but only discussed in plenary session.

The Conference subject, "The Learning of Two or More Languages or Dialects by Young Children, Especially Between the Ages of Three and Eight, With Particular Attention to the Social Setting," will be considered by five panels of writers under the following topics: Home and Preschool Language Learning, Curricular Patterns in Early Bilingual Schooling, Linguistic Factors in Bilingualism and Bidialectalism, Socio-Linguistics Factors in Bilingual Education and Various Aspects of Child Language. A sixth session, on Wednesday afternoon, will be reserved for a discussion of further needed research and planning for the future, especially for the August 1972 Conference on Child Language in Copenhagen.

III

The Conference will be open to all interested persons. Requests for preregistration may be directed to Mr C. Edward Scebold, Executive Secretary, American Council on the Teaching of Foreign Languages, 62 Fifth Avenue, New York, N.Y. 10011.

In conclusion, I should like to thank all those who are making possible this meeting of researchers in the field of child language, notably Dr Max Gorosch, Dr John Lotz, Dr Albert H. Marckwardt, Mr C. Edward Scebold, and especially Prof. Henri Dorion and his colleagues at the International Center for Research on Bilingualism.

Theodore Andersson

Professor of Spanish and Education
The University of Texas at Austin
Conference Co-Chairman

Austin, Texas
September 17, 1971

CONFERENCE ON CHILD LANGUAGE

Conrad Hilton Hotel, Chicago
November 22-24, 1971

Sponsored by the International Association of Applied Linguistics and its Commission on Child Language (Stockholm), the Center for Applied Linguistics (Washington), and the American Council on the Teaching of Foreign Languages (New York).

Conference Co-Chairmen: Theodore Andersson, Professor of Spanish and of Education, The University of Texas at Austin, and R.W. Rutherford, Organiser, Child Language Survey, York University, York, England.

Conference Subject: The learning of two or more languages or dialects by young children, especially between the ages of 3 and 8, with particular attention to the social setting.

Purpose: (1) To contribute to the work of the International Association of Applied Linguistics by seeking the collaboration of researchers in child language on this side of the Atlantic; (2) to identify researchers and to stimulate further research, especially in the learning of two or more languages or dialects by young children; (3) to seek ways of applying the results of such research to schooling, with a view to improving our educational practices, especially in the rapidly developing field of bilingual education.

Section I - Home and Preschool Language Learning

Monday, November 22, 9-11 a.m.
Chairman: Alfred S. Hayes, Director, Language in Education Program, Center for Applied Linguistics, Washington, D.C.
Recorder: G.Richard Tucker, Assistant Professor of Psychology, McGill University, Montreal.

* Panel: Chester C. Christian, Jr., Director, Inter-American Institute, The University of Texas at El Paso, "Differential Response to Language Stimuli Before Age 3: A Case Study."

Rogelio Diaz-Guerrero, M.D., and Rosario Ahumada de Diaz, Director, Centro de Investigaciones Pedagogicas, Mexico City, "The Acquisition of Verbs in 3, 4, and 5-Year-Old Mexican Kindergarden Children."

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* Participants whose communication is preprinted herein.

* Ragnhild Söderbergh, Docent, Institute of Northern Languages, University of Stockholm, "A Linguistic Study of a Swedish Preschool Child's Gradual Acquisition of Reading Ability" and "Swedish Children's Acquisition of Syntax: A Preliminary Report." 15

* Roy W. Alford, Educational Development Specialist, Early Childhood Education, Appalachia Educational Laboratory, Inc., Charleston, W. Va., "Appalachia Preschool Education Program: A Home-Oriented Approach." 45

* Jane M. Christian, Lecturer in Anthropology, The University of Alabama in Birmingham, "Style and Dialect Selection by Hindi-Bhojpuri Speaking Children" and "Bilingual Development in a Two-Year-Old Gujarati-English Learning Child." 64

* Ilonka Schmidt-Mackey, Docteur ès Lettres, Professeur, Département de Langue et de Linguistique, Université Laval, Québec, Canada, "Language Strategies of the Bilingual Family." 85

Section II - Curricular Patterns in Early Bilingual Schooling

Monday, November 22, 2-4 p.m.
Chairman: James E. Alatis, Associate Dean, Institute of Languages and Linguistics, Georgetown University, Washington, D.C., and Executive Director, TESOL.
Recorder: Al Ramirez, Director of Curriculum, Region One, Education Service Center, Edinburg, Texas.

Panel: Robert D. Wilson, Director, Consultants in Total Education, Inc., Los Angeles, California, "Assumptions for Bilingual Instruction in the Primary Grades of Navajo Schools."

Rosa G. de Inclan, Consultant on Bilingual Education, Dade County Public Schools, Miami, Florida, "An Updated Report on Bilingual Schooling in Dade County, Including Results of a Recent Evaluation."

* Wallace E. Lambert, Professor of Psychology, and G. Richard Tucker, Assistant Professor of Psychology, McGill University, Montreal, Canada, "The Home/School Language Switch Program in the St. Lambert Elementary School, Grades K through 5." 139

* Shari Nedler, Director, and Judith Lindfors, Resource Specialist, Early Childhood Learning Systems Design, Southwest Educational Development Laboratory, Austin, Texas, "A Comprehensive Bilingual Program for Disadvantaged Spanish-Speaking Preschool Children." 148

* Charles H. Herbert, Jr., Director, Regional Project Office, Bilingual Teacher Training, San Bernardino County Schools, San Bernardino, California, "Initial Reading in Spanish for Bilinguals." 501

Virginia Hoffman, Curriculum Design Specialist, Consultants in Total Education, Inc., Los Angeles, California, "Question-Generation by First-Graders: A Heuristic Model."

Section III - Linguistic Factors in Bilingualism and Bidialectalism

Tuesday, November 23, 9-11 a.m.
Chairman: Vera P. John, Associate Professor of Psychology and Education, and Director, Language and Behavior Program, Yeshiva University, New York, N.Y.
Recorder: Dillon Platero, Director, Rough Rock Demonstration School, Chinle, Arizona, and First Vice President, National Indian Education Association, Minneapolis, Minnesota.

* Panel: Mary Ritchie Key, Assistant Professor of Linguistics, University of Califormia at Irvine, "Some Grammatical Structures of Child Black English." 170

* Rodney Young, Assistant Professor of Education, The University of Utah, Salt Lake City, "Development of Semantic Categories in Bilingual Spanish and Navajo Children." 193

* Merrill Swain, Ph.D. Candidate, University of California at Irvine, and Project Officer, Bilingual Education Project, Modern Language Center, Ontario Institute for Studies in Education, Toronto, Canada, "The Learning of Yes/No Questions by Children Who Had Heard French and English from Birth." 209

* Bernard Spolsky, Associate Professor of Linguistics and Elementary Education, The University of New Mexico, Albuquerque, and Wayne Holm, Principal, Rock Point Boarding School, Rock Point, Arizona, "Bilingualism in the Six-Year-Old Navajo Child." 225

* Serafina Krear, Assistant Professor of Education, Sacramento State College, Sacramento, California, "Development of Pre-Reading Skills in a Second Language or Dialect." 240

Section IV - Socio-Linguistic Factors in Bilingual Education

Tuesday, November 23, 2-4 p.m.
Chairman: H.H. Stern, Director, Modern Language Center, Ontario Institute for Studies in Education, Toronto, Canada.
Recorder: Frances Sussna, Executive Director, Multi-Cultural Institute, San Francisco, California.

Panel: Rolf Kjolseth, Associate Professor of Sociology, University of Colorado, and President, Research Committee on Sociolinguistics, International Sociological Association, "The 'Problem' of Chicano Talk Which Isn't."

* Aaron Bar-Adon, Professor of Linguistics, The University of Texas at Austin, "Child Bilingualism in an Immigrant Society." 264

* Robert L, Muckley, Chairman, Department of English and Linguistics, Inter American University of Puerto Rico, "After Childhood, Then What? An Overview of Ethnic Language Retention (ELRET) Programs in the United States." 318

* Sarah Gudschinsky, Literacy Coordinator, Summer Institute of Linguistics, and Professor of Linguistics, The University of Texas at Arlington, "Literacy in the Mother Tongue and Second Language Learning." 341

* Joshua A. Fishman, Visiting Professor, Hebrew University, Jerusalem, and Director, International Research Project on Language Planning Processes, Israeli Section, on leave from Yeshiva University, 1970-1972, "Varieties of Bilingual Education in Israel: The Jewish Picture" and "Socio-Political Patterns of Bilingual and Bidialectal Education: A General Theoretical Model." 356

A. Bruce Gaarder, Assistant Director, Division of College Programs, Bureau of Educational Personnel Development, U.S. Office of Education, "Language Maintenance or Language Shift: The Prospect for Spanish in the United States."

Section V - Various Aspects of Child Language

Wednesday, November 24, 9-11 a.m.
Chairman: Albert H. Marckwardt, Professor of English and Linguistics, Princeton University, Princeton, New Jersey, and Interim Executive Director, Center for Applied Linguistics, Washington, D.C.
Recorder: Mario Benitez, Vice President and Dean of the School of Arts & Sciences, Texas A & I University, Kingsville, Texas.

* Panel: W.H. Giles, Founder-Director, The Toronto French School, Inc., "Cultural Contrasts in English-French Bilingual Instruction in the Early Grades." 368

* William F. Mackey, Professor of Linguistics, Laval University, and Researcher, International Center for Research on Bilingualism, Quebec, P.Q., Canada, "Free Language Alternation in Early Childhood Education." 396

* Glenn J. Doman, M.D., Director, Institutes for the Achievement of Human Potential, Philadelphia, "How Brain-Damaged Children Learn to Read." 433

* Eleanor Thonis, Director-Psychologist, Marysville Reading-Learning Center, Marysville, California, "The Dual-Language Learning Process in Young Children." 461

* John Macnamara, Associate Professor of Psychology, McGill University, Montreal, Canada, "The Cognitive Strategies of Language Learning." 471

* Ralph Robinett, Project Manager, Spanish Curricula Development Center, Miami Beach, Florida, "Curriculum Devlopment for Bilingual Education." 485

Section VI - Planning for the Future

Wednesday, November 24, 2-4 p.m.

A committee consisting of the section chairmen and recorders will submit for general discussion a report on possible ways of following up on this Conference and of preparing for another conference on child language, to be held in Copenhagen in August of 1972 in connection with the meeting of the International Association of Applied Linguistics.

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* Virginia Streiff 119

Chester Christian, Director
Inter-American Institute
The University of Texas
El Paso, Texas 79968

DIFFERENTIAL RESPONSE TO LANGUAGE STIMULI BEFORE AGE 3: A CASE STUDY

Chester C. Christian, Jr.

The case study which provides data for the following report not only is still in progress at the present writing, but is at a stage in which it is impossible to derive even tentative conclusions with respect to the most important of the hypotheses being tested. The report is being written at this time in the hope of eliciting suggestions with respect to further techniques of experimentation and observation.[1]

The basic hypotheses attempt to state the most favorable conditions for the learning, retention, and continuing development of abilities in a minority language throughout the lifetime of the person. In general, it is assumed that although children are capable of becoming skilled in the use of two or more languages before the age of six, practical ability to use a minority language may be lost rapidly after that age unless certain conditions are met.[2] Some of these conditions are thought to be the following: 1) continuing exclusive or almost exclusive use of the minority language by a person of the child's household in speaking with the child; the greater the prestige of this person in the view of the child, the more favorable the prognosis for continuing use and development of the language; 2) development of literacy in the minority language; the earlier the development of literacy, and the more completely abilities are developed before learning the majority language, the more favorable the prognosis; 3) absence of television or highly restricted viewing of shows in the majority language; the less time spent in viewing television presented in the majority language, the greater the possibility of preserving and developing the minority language; and 4) use of the minority language in teaching the child academic subjects other than language; the higher the prestige of the teacher and the more academic the subject, the greater the possibility of continuing development of the minority language.[3]

The key concept in these statements is regarded as "prestige," and the degree of success or failure of bilingual education in the home or in the school is considered proportionate to the degree to which prestige is associated with each language being learned. In this respect, the following generalizations may be subsumed under the hypotheses previously stated: 1a) the person of least prestige in most households is the family servant, and the father the person of greatest prestige (even though--or perhaps because--emotional ties to the mother are usually strongest); 2a) the prestige of a language is in proportion to the degree to which one is literate in that language; 3a) the prestige of a language is proportionate to the degree to which the family responds to the mass media, especially television programs, presented in that language;

and 4a) in the United States, the most prestigious subjects in school are those associated with cognitive development, and the least prestigious those associated with emotive activities.

In view of the above considerations, the parents of Raquel, the subject presently under consideration, decided to speak only Spanish to her at home, although it is the second language of her father and the family lives in an English-speaking neighborhood.[4] She was expected to learn English as a second language largely from playmates. There is no television set in the home. With respect to written language, they decided to teach her to read and write in Spanish first, while learning to speak English, so that before entering school she would be literate in Spanish and understand spoken English.

In the personal sense, their language policies were chosen for practical, psychological, and socio-cultural reasons, with the purpose of giving the child highly developed capabilities in at least two languages, motivation to use each of the languages as permament vehicles of spoken and written expression, favorable attitudes toward those who speak each of them, and a deep understanding of the socio-cultural value systems associated with each, with preference given to Spanish as a vehicle of personal experience and relationships, and to English for the manipulation of cognitive structures. These purposes are considered desirable by Raquel's parents for most children living in bilingual communities in the United States whose home language is Spanish.

At the present writing, Raquel has spent eight of the twenty months she has been using words in South America (Peru and Colombia), including time periods during which she was fourteen to nineteen and twenty-eight to thirty-one months of age. Her response to English was developed almost entirely, therefore, between the ages of nineteen and twenty-eight months, diminishing in the subsequent five months to understanding of only a few words and use of no more than three of four. Therefore the present report emphasizes response to Spanish language stimuli, including spoken words, names of letters, various forms of writing, sentences, numbers, illustrations, recordings, and one television series.

From the age of nine to fourteen months, active vocabulary was limited to approximately six words in Spanish: mamá, papá, Raquel, gracias, no, and ya. During the following five months, spent in Lima, Peru, approximately twenty words were added. Upon returning to the United States at the age of nineteen months, rapid vocabulary development began within three weeks, and during the twentieth month at least thirty-six new words were used, all in Spanish. In addition, four letters, a, b, c, and e were recognized and named at sight. Raquel's first original sentence was produced at twenty-seven months: "Escribe algo."

Although it may be to a degree coincidental, rapid vocabulary development began with the gift of a Spanish alphabet book with large clear capital letters, no words, and rather abstract illustrations. Raquel was more interested in the letters than in the illustrations, and between the ages of twenty and twenty-four months she learned to recognize twenty-four letters, eleven written words (one-inch capital letters written with ball-point pen on 3x5 cards), and had attempted to write several letters, reproducing in recognizable form the written a, e, and o, calling the written letter by its Spanish name. A month later she was able to read ten more words upon sight only, and an additional six after hearing the letters pronounced.

By the age of twenty-five months her active Spanish vocabulary was more than 300 words, but she had used only five words in English: bye-bye, okay, Susy (her next door playmate), water, and this. In other words, during the time in the United States that she was adding approximately fifty words per month to her active Spanish vocabulary, she was adding only one per month to her English vocabulary, in spite of almost daily contact with neighborhood children who spoke only English. She insisted that they "understand" her Spanish rather than attempting to communicate with them in English.

At the age of two years her father administered a Spanish version of the Peabody Picture Vocabulary Test used in one of the bilingual elementary school programs, and she scored a mental age of 2 years and 2 months. Her score in English was zero.

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One assumption related to the learning of written Spanish first was that it would be learned more rapidly than English might be, due to the predictability and clarity of the sound system and the close correspondence between the sound and the writing systems.[5] This was partially verified by the fact that Raquel wanted to make the systems even more predictable and less ambiguous, with a still closer correspondence between the speaking and writing systems.

For example, she insisted that the "W" was an inverted "M" and at first refused to pronounce the term "ve-doble." She had learned the term "ve" for the "B," and refused to use the same term for the "V." She did not regard it appropriate to use a sound for a double letter, such as "LL" or "CH." Although she learned to make these distinctions, it was with much reluctance and continuing skepticism.

At the age of twenty-one months she was given a set of blocks in order to be able to learn to put letters together to form words, and of course several of the Spanish letters were not included. She apparently missed them, because several months later when she saw a written "Ñ" she repeated the term for it again and again, with all the thrill of having seen an old friend. In the meantime, she had been given a set of plastic lower-case letters with magnets to attach to a slate; she favored the letters similar to capitals and those which did not change name when reversed or inverted.

Shortly after receiving the blocks, she noticed the typewriter and tried to put her blocks on top of the keys, matching them to the typewriter letters. She likes to "write" with the typewriter, but still thinks of it as a machine to produce individual letters, not words and sentences.

During this period from twenty to twenty-five months she seemed to live in a world of letters, discovering them on signs, in newspapers, and through her environment--although largely in English sets, of course. For example, at twenty-two months she was so impressed by the huge letters spelling out SAFEWAY on a store that she cried to climb up and play with them. When she saw an advertisement for K-MART in the newspaper at twenty-four months, she pointed to the name and said "tienda."

From the age of twenty-five to twenty-eight months, although play with words and letters continued on much the same basis as before, generally with Raquel's father, her interest in both letters and words declined steadily. She treated these sessions with ever less seriousness, laughing and often responding in nonsense syllables. One reason seemed to be an increasing interest in other forms of language play and graphic representation.

During this time she accepted English from non-Spanish speakers, understanding most of what was said to her in simple terms, but would protest if her father used English with her, shaking her head and saying, "no, no, no, no, no."

Although Raquel's parents do not have a television set, she viewed television while in Lima at her grandparents' home from the age of fourteen to nineteen months. She was interested in only one program, "Topo Gigio," and this interest extended to a recording of songs from the program, which she insisted on having played five or six times each day. However, she did not become interested in hearing other records until a year later, when her father acquired several records being used in a bilingual program. Of these, she first responded with great enthusiasm exclusively to a recording by Luz Bermejo, wanted to hear it constantly, and did not want any other record to be played. This record, and no other, was "música para niños."

However, two weeks later another record was chosen as "música para niños" and she no longer wanted to hear Luz Bermejo. In this way she changed her enthusiasm regularly every one or two weeks. She generally responded by dancing enthusiastically for an hour or more at a time, and repeating words and phrases heard on the record. During the period of intense interest in one record, she would reject violently all others, even previous favorites.

This pattern was also followed in her reactions to other language stimuli. For example, from twenty-five to twenty-eight months she became interested in drawing, and would reject written symbols: "mamá" became a drawing of mamá, and she did not want the word to be written.

Although she continued to play with English-speaking children only, Raquel's active vocabulary in English continued to expand by only two or three words per month.

At the age of twenty-eight months, she went for a visit with her mother to her grandparents' home in Lima, remaining seven weeks. During this period of time, she forgot almost all the English she had learned, and lost interest in reading and also in responding to words spelled orally. Her response to the latter was by repeating the letters very rapidly rather than saying the word. Her only utterance in English during the week following this visit was in response to her father, when he told her, "You are a lovely girl." She replied, "Thank you. Please." After another month in Bogotá, however, her response to this remark in English was, "No. Soy Raquelita."

In Bogotá, during her thirtieth month, her interest in reading was revived when her brother, sixteen months younger, began to receive books. At the age of fourteen months, he would respond with Spanish vowel sounds upon seeing a book, writing instrument, or paper. She would then "correct" him, as well as taking his book away from him.

During this month she also began to draw, first faces, then adding bodies, legs, and arms, and assigning names to her drawings. She was not much interested in attempting to write letters or words, but usually asked for materials by saying, "Quiero escribir" rather than "Quiero dibujar." She apparently does not distinguish clearly between the two activities.

At the present writing, the family has returned to El Paso, Texas, and has been joined by Karen, a half-sister of Raquel, who began to learn Spanish at age five and used it until one year before leaving for India at age fourteen, where within two years her ability to understand it apparently diminished rapidly, and she lost the ability to speak it in normal conversation. This also happened with a younger brother and sister, who had learned Spanish from a maid simultaneously with English. However, an older sister who learned Spanish later (after age seven), but who became highly literate in the language, seems to have retained almost her full abilities after four years in India out of contact with it.

Since Karen speaks English to her father and step-mother, Raquel has become more interested in the language, and at the age of thirty-one months, has just begun imitating sounds consistently, whether they represent new vocabulary items in English or in Spanish, and whether or not she understands their meaning. She asks the name of almost everything new that she sees, and repeats it carefully.

Also, she seems now much more interested in reading words than in letters. It seems reasonable to predict that between the ages of three and five years she will learn to read books in Spanish and to speak English fluently.

This prediction is based upon the expectation of relatively greater strength of family as opposed to school and community influences, however, with the crucial factors being the continuing use of the minority language by both parents and the development of literacy in it through home instruction before literacy in the majority language is imposed by formal public education.

The two forces later most capable of destroying the full capabilities of the child in the home language, the parents believe, are television and the public schools. Their community, through its proximity to Mexico, offers public and private education as well as television in Spanish, but neither commands the resources--or the prestige--that television and public education command in the United States. Furthermore, the purpose of the parents is not to make the minority language the only or even principal language of the child, but to create a balance between the languages where almost all social and psychological factors are weighted in favor of the majority language.

In this process, bilingual education in the public schools is seen as a possible ally, but at the same time there is reason to suspect that it may, through association of more prestigious persons and language activities with English, sabotage the structures it attempts or pretends to build. The parents in this case consider it their duty, therefore, to put all their weight--all their prestige in the view of their children--on the side of the minority language.

FOOTNOTES

1. One valuable set of suggestions has already been received, though indirectly, through the recommendation by Theodore Andersson of the book by Glen Doman, "How to Teach Your Baby to Read."

It will be clear that some of the errors of technique in teaching the child under consideration to read could have been avoided by consulting this book a year ago. There should have been, for example, more emphasis on words written in lower-case letters. However, in the present case neither size nor color of letters seems to have been of the importance one might expect from reading the book. Raquel easily reads standard pica type, but does favor larger letters.

2. A "forgotten" language may be re-learned rapidly later, however, and with more accurate pronunciation than would otherwise be possible. But the writer has observed children whose parents were born and reared in Latin America speak Spanish with much hesitation and with an English accent, although they had earlier learned to speak it rapidly and with a standard accent. In these cases, prestige may be associated, albeit unconsciously, with hesitating, accented speech in the minority language.

3. The two greatest weaknesses of most bilingual programs where Spanish is used seem to be the lesser prestige of the language as compared with English, which results in its functioning as a crutch to be used only in case of emergency, and the discontinuance of its use as soon as the most severe and obvious stage in the emergency is past. With this attitude prevailing, it is hardly surprising that pupils in general would continue to regard it as a weak secondary means of communication in school, nor that use of it as an officially tolerated jargon should do little to improve the self-image of those pupils who use it as a home language.

4. Raquel was born in El Paso, Texas on January 14, 1969. Her mother is Peruvian, but began to study English at the age of six years in a U.S.-sponsored school, continuing for eleven years and becoming a bilingual secretary after graduation. Her father began to study Spanish as an adult, and has taught Mexican-American and foreign students in Spanish for a total of eight years, beginning in 1959, and developing a progressively stronger interest in and association with bilingual education since that time.

5. The transition described by Carol Chomsky as necessary in English is not necessary in Spanish, and this should allow much more rapid development in Spanish reading. See "Reading, Writing, and Phonology," Harvard Educational Review, Vol. XL, No. 2 (May 1970), p. 297. "It is highly likely that the child, however, in the beginning stages of reading, does assume that the orthography is in some sense "regular" with respect to pronunciation. In order to progress to moe complex stages of reading, the child must abandon this early hypothesis, and come eventually to

interpret written symbols as corresponding to more abstract lexical spellings. Normally he is able to make this transition unaided as he matures and gains experience both with the sound structure of his language and with reading.

Ragnhild Söderbergh :

Swedish Children's Acquisition of Syntax : A Preliminary Report.

The aim of this project is to examine the development of Swedish speaking children's syntax from the appearance of the first two-word sentences until all the basic syntactical rules are mastered.

So far no systematic studies of Swedish speaking children's syntax have been carried out. Realizing that every child learning his mother tongue has got his individual language which cannot be interpreted without a thorough knowledge of the child's environment, habits and experience - his "cultural context" - we abandoned the idea of a statistical examination of a great many children where every child is recorded for only a couple of hours. Instead we chose to make a deep study of a few children.

Following Bellugi, Brown, Gvozdev, Lenneberg and others, who state that the first two-word sentences appear at age 1 1/2 to 2 and that the basic syntactical development is finished at age 3 to 4, we decided to start with children 1 1/2 to 2 years old and to follow their linguistic development during two years.

Finally we chose six children, four girls and two boys, all first born. The parents have got university or college education and the children are all nursed in their homes.

The children are recorded in their homes for half an hour every second week. One of the parents or a nurse is present at the recordings, playing and talking with the child. There are normally three of us assisting at these recordings. One is helping the parents to provoke speech and is trying to guide the games in such a way that they give the child an opportunity of talking as much as possible. Another is keeping an eye on the recorders and the microphones, which have often to be moved from one end of the room to the other. The third person is a kind of reporter, commenting in a low voice on what the child is doing, what is happening in the room etc. These comments are recorded on a stereo recorder (Tandberg), channel one. A synchronous recording of the conversation between child and adults is made on channel 2.

To record the conversation between child and adults, our chief aid, however, is a Nagra recorder with two microphones, one of which is reserved for the child.

To elicit as much speech as possible from the children we bring with us toys and pictures. To provoke the children to say full sentences we have tried to choose pictures where something is happening. Otherwise there is a danger that they resort to pointing at the things in the pictures all the time, talking in one-word sentences, either asking "what" or saying "there" or -possibly - the names of the things.

Another way to provoke speech has been to show new toys to the child and to play with these toys when the parents are not present. Then one of the parents is summoned and the child is asked to show mummy or daddy the toys and tell what we have just been doing.

Testa have also been tried - on a very moderate scale - mostly to get an idea of the children's understanding of different syntactic structure (questions, commandments, subject-predicate, subject-predicate-object etc.). Finally we have a very useful and necessary collaboration with the parents, who do not only act as interpreters but also supply us with information about the daily life of their children, what they say and do etc.

The recordings are transcribed as soon as possible after the sessions. The transcriptions are morphematic, except when it is impossible to understand what a child says. Then a phonematic transcription is made of the incomprehensible word.

The transcription is written in two columns : in the left hand column the conversation between child and adults is rendered, in the right hand column the reporter's comment is given[1].

A very short abstract (in English translation) is the following :

Child :	Boil.	he puts the coffea-pot on
	It is boiling.	a saucer turned upside down
	Now it boiled.	
Adult :	You must lay the table.	
Child :	Mm.	
	I have got no paper.	looks towards his mother

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[1] The idea of making synchronous comments on a tape recorder I got from Dr Grace Shugar at the conference on child language held in Brno, October 1970.

Two assistants are transcribing the same recording : for greater correctness they are working independantly of each other. Then the two versions are compared and every discrepancy between the two is marked. Finnaly a third person, the editor, listens to the recordings a last time, and on base of the two transcriptions makes the final version, trying to decide about the passages where the transcriptions differ. Often it is obvious that one of the transcriptions is the right one, sometimes the right version is a mixture of the two transcriptions. In very problematic cases the editor and the two assistants listen to the passage together and try to make a decision.

The project started on the first of September 1970. We are four persons engaged in it : two full-time assistants who are at the same time preparing their doctoral dissertations, a half-time secretary and myself. Every week three recordings are taken, and to make one single transcription takes about 10 hours. Every recording, then , requires 30 hours' work totally before the manuscript can be handed over to the typist. Under these conditions there is not much time to analyze the material systematically . We will have to leave that until the two-year period is finished.

Nevertheless we have been able to make many useful observations which will be good starting points for our future analyses.

The first thing we observed was that all the children are extremely different from each other in spite of their rather homogenous social setting. Some are normally very gay and happy, others rather sulky. Some have a steady temper, others a more fluctuating. Most children were willing to collaborate with us and to take part in the games and tests. But in one case we met with a stubborn resistance.

As regards speech, two are extremely talkative (one boy and one girl), three are moderately talkative and one little girl is almost completely silent. This girl, however, had developed a whole system of gestures which she used together with "yes" and "no" and a few nouns. Moreover she turned out to be unusually "social", extremely willing to collaborate, good - humoured and happy. To get something out of this girl we had to test her understanding of language, and therefore constructed questions to find out whether she knew the different types of clauses (declarative, interrogative, imperative), if she understood the subject-object relation, if she knew the meanings of certain prepositions etc. Thanks to the girl's willingness to collaborate, we got rather good results, and we also used the tests with the other children to check if understanding precedes production. As regards the prepositions we made the following observations :

1. During a certain period the child only understands a few prepositions, such as "in", "behind".
2. Later the child understands most prepositions quite well but uses them incorrectly. Often one single preposition is used in a great many cases, preferably "in".

As an example the following experiment may serve. We hid several toys : one under a pillow, one behind a pillow and one in a handbag. We gave the child instructions where to find the toys, and she succeeded very well, looking behind the pillow (not touching it) to find the toy behind, lifting the pillow to find the toy under etc. Immediately afterwards the mother took the toy which had been under the pillow, asking "Where did you find this?" The girl answered "In the pillow". Her mother tried to make the girl correct herself and said "No, you did not find it in the pillow, did you? You found it - " "In the sofa" the girl cried out happily.

Brown, Bellugi and others have shown that the earliest sentences of the children are "telegraphic", containing only the contentives of the clause, which are also the words with heavy stress. We have noticed the same thing. But we have also observed the development of the unstressed words , and then we have noticed that at certain periods there appear some grumbling sounds where there should be an article, a preposition, a pronoun etc. Some weeks later these sounds are here and there replaced with something very much resembling the correct unstressed word, until finally the word is there. This might be compared with a much earlier stage in the linguistic development of the child, when it is practising intonational patterns with nonsense words. Little by little these patterns are filled out with the first real words.

It also seems evident to us that children practise language. At an early stage our children were practising single words. One of our girls was once trying to say the same word again and again while she was putting her doll to bed : /bɛba / /baba/ etc. The word she tried to say was /bɛda/, which means "make the bed".

Later in their linguistic development the children practice sentences. One and the same sentence can be uttered up to ten times with different word order and different intonation. One or two tries might give a correct result, but this is almost never the last try. The other tries usually give ungrammatical sentences.

It also seems evident that imitation plays a great part in the linguistic development of the child. Here the communication parent-child is most revealing. Our most advanced children have parents who talk a great deal with (not to) their children and who listen to them, trying to understand what they say. These parents often "translate" (not correct) and develop what their children say in order to check that they are on line with each other. The child might for instance say :"Dolly eat". Then the father says : " Shall Dolly eat? Yes. Here is a saucer and a spoon. Now we let Dolly eat". Such translations or "imitations with expansion"[2] made by the parent seem to be of great importance to strengthen the right structural patterns. As mentioned above the child often practices semantically the same sentence again and again with different syntactic structures. When one or two of these tries are right, the child evidently knows how to produce a correct sentence. Then it is essential to have these potential patterns strengthened.

With the three best speaking children in our group there is mutual communication and understanding parent - child, and parents and child have a rich linguistic and non-linguistic context in common to which they perpetually refer and which we - as visitors - must all the time ask about. One reason for this unusually good communication parents - child is, that in all three cases one of the parents - or both , alternatively - are together with their child most part of the day.

With the children that do not speak so well this common context is lacking and it is evident that parent and child do not talk so much together except for the sessions when the children are recorded. The children are all day nursed by young girls, 17 - 19 years old. In the case of the non-speaking, gesturing child, however, the mutual communication parent - child is quite good, but the child here is left all day with a nurse that is passive and silent.

We have also noticed that the children often try very hard to say what they want to say. Talking is hard work for them, Especially when they try to produce sentences longer than two words, if they still belong to the two-word stage. Stuttering seems to be a very common phenomenon. Very often the child breaks off a sentence two to three times and begins anew until he succeeds moderately well.

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[2] To use the term coined by Brown and Bellugi - see Roger Brown and Ursula Bellugi, Three Processes in the Child's Acquisition of Syntax, MIT 1964.

These are some glimpses of such observations as we have been able to make during our first year of recording. Later we shall make a systematical description in terms of phrase structure grammar and transformational grammar. If time permits we shall also try to check some of the results of the longitudinal deep study by making a statistical study of 100 children aged two to four. Such a study is necessary for us to be able to make statements about Swedish speaking children's language in general, although it is not the right way to take if you want an allround picture of the syntactical development of the child from two to four, where extreme attention must be paid to non-linguistic factors, particularly the setting and equipment of each child.

Ragnhild Söderbergh:

Reading in Early Childhood.

This paper is a summary of my book "Reading in Early Childhood. A Linguistic Study of a Swedish Preschool Child's Gradual Acquisition of Reading Ability" (Stockholm 1971).

I have closely studied a child learning to read from the age of two years and four months by the method accounted for by Glenn Doman in his book "How to Teach Your Baby to Read" (New York 1964). By this method the child learns whole words as entities. I have shown how the child, as it learns more and more words, gradually breaks down these words inte smaller units: first morphemes, then graphemes. At last the child arrives at an understanding of the correspondences between sound (phoneme) and letter (grapheme) and is able to read any new word through analysis and synthesis. In my experiment this stage is reached after 14 months of reading, i.e. when the child is three years and a half.

The findings of this study have been viewed in the light of recent linguistic theories as presented by research workers in child language inspired by Chomsky - such as Brown, Bellugi and Lenneberg.

Chapter One.

Learning to read. Theories and methods confronted with different linguistic theories.

In this chapter a short summary is given of the debate on reading in the USA in the 1950s. The authors main source here has been Jeanne Chall "Learning to Read. The Great Debate" (New York 1967).

According to Jeanne Chall there are - theoretically - two dominating methods in reading instruction, the phonics method and the reading-for-meaning method. In practice however there is often a mixture between the two.

The pure phonics method implies that the pupil is taught the letters of the alphabet and the corresponding sounds. Then he is taught to read by "sounding and blending", i.e. he sunds out the new words and then synthesizes the sounds so that the right word is produced.

The sponsors of the reading-for-meaning method oppose this - as they think - unnatural and boring way of reading and instead teach whole words and sentences from the very beginning, thus giving their pupils at once the experience of what are the ultimate goals of reading: comprehension, appreciation and - finnally - application.

In the pure phonics method the child is presented with the code and taught how to use it. In the extreme reading-for-meaning method the child is not taught the code.

Jeanne Chall has summarized the results of recent research in England and the USA on methods in beginning reading and arrives at the following conclusions: "Early stress on code learning ... not only produces better word recognition and spelling, but also makes it easier for the child eventually to read with understanding" (Chall, p. 83).

Chall gains support for the view that an early acquisition of the code is necessary also from the theoretical considerations of linguists, particularly Leonard Bloomfield and Charles C. Fries. These linguists, however, both consider written language as secondary to and completely dependent on spoken language. Bloomfield is apt to disregard written language altogether, from a scientific, linguistic point of view: "Writing is not language but merely a way of recording language by means of visible marks" (Language, p. 21).

Bloomfield was the linguistic pioneer of his time, and his views dominate the opinions of many linguists during the 1940s and 1950s. Recently, however, the written language has been considered an object worthy of investigation independently of the corresponding spoken language. There has been a strong tendency among linguists towards stressing the differences between the two codes, differences not only on the phonemic-graphemic level but also as regards morphemics and syntax. Linguists have even claimed that written language should be considered as a more or less independent system. (See Sture Allén, W. Nelson Francis, H.A. Gleason and H.J. Uldall).

The current trend in linguistics represented by Chomsky and his school has more or less revolutionized the ideas about language learning and language acquisition. According to Chomsky we have a biologically founded innate capacity for language. This means that when a child is exposed to language he does not just imitate but attacks the language he is being exposed to, observing it and constructing hypotheses about it. He builds his own model of the language, working out his own linguistic system consisting of sets of rules which are gross approximations of the correct system. As he is exposed to more and more linguistic material and as he is able to test his model by actual use of the rules when speaking, these rules are continually reconstructed and modified until, finally, the model becomes identical with the normal adult model. Chomsky's theories have been partly verified by many studies on child language presented during the 1960s, by Robert Brown, Ursula Bellugi, Colin Fraser, Paula Menyuk and others. Belief in the biological foundations of language has been convincingly advocated also by Lenneberg in a book so titled which appeared in 1967. According to Lenneberg it is undisputable that the onset of speech and of certain linguistic abilities such as babbling, speaking isolated words, producing two word sentences etc. are determined by maturational processes (Lenneberg p. 127 f.).

The maturational processes and the innate capacity that cause children to start learning to speak at a certain age (18-28 months) without any form of instruction - the only requirement being that they are exposed to language - should also explain why this highly complicated learning process is being completed so quickly: within a period of two years all basic syntactic constructions of the language are mastered by the child.

Now, if a child learns to talk at a certain age without formal instruction, solely by being exposed to language, and if written language is to be considered as an independent system, why cannot a child learn to read at the same age and in the same way as he is learning to talk, solely by being exposed to written language? He would then be supposed to attack the written material, forming hypotheses, building models, all by himself discovering the code of the written language, of its morphematic, syntactic and semantic systems etc.

That this is possible we know from the fact that some children learn to read "all by themselves", i.e. just by observing a text while listening to other people reading it.

In a talk given at the annual meeting of American reading specialists in Boston, in April 1968, professor Arthur I. Gates, one of the foremost reading specialists in the United States, said that a recently finished investigation in the USA has shown that 80% of the children beginning school in the USA can read a certain number of words. There are also facts revealed in this investigation that hint at the possibility that very soon children will learn to read exactly in the same way as they now learn to understand and express themselves in spoken language, i.e. by living a normally active and verbal life.

That children can learn to read at an early age without real instruction is well known, but how children succeed in doing so has not yet been systematically studied. The chief interest then - when the child is learning to read a language written with an alphabet - must be centered on the following question: how does the child on its own discover the relations between letters (graphemes) and sounds (phonemes)? Not until these correspondences are evident to the child, he can be said to have achieved full reading ability, i.e. to be able to read any word irrespectively of whether he has seen that word earlier or not.

Chapter Two

The aim of this treatise. Method used in the experiment

The author decided to learn a child to read from about the age of two in a way that as much as possible resembles the way in which spoken language is acquired, i.e. to present (written) words and sentences in such contexts as to make clear the meaning of these words and sentences. Then the author intended to study the process by which the child arrives at full reading ability, i.e. at the understanding of the correspondences between letters and sounds.

For me to be able to follow this process, however, the child must in some way communicate it to me. The most reasonable way of communication, then, seemed to be through speech: the child must read aloud, which meant that I had to present written language to the child through the medium of spoken language, by showing written words and telling what they said. But this had to be done with an absolute minimum of instruction. To this end I chose the Doman method.

For the benefit of the reader, I shall here give an account of Doman's method, trying to analyse it and to state in what respects it might accord with or violate our principle of "free exposure" without inflicting any instruction on the child.

Words are written on cards, one word on each card. To begin with the letters should be red and 12.5 cm high [1] The cards are presented to the child at a maximum rate of one a day.

The first word is mother. When the child says "mother" as soon as you show that card, you go to the next card, which reads father. When you are sure that the child can discriminate the "mother" card from the "father" card you proceed to nouns denoting parts of the body (hand, nose, ear etc.). These words are written with 10 cm high red letters.

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[1] The letters should be red to attract the attention of the child and they should be big enough to make even a small child able to perceive the word. Doman makes a great point of this. In his opinion the reason why small children do not learn to read all by themselves at a very early age is that the letters of printed matter are generally not big enough.

Then you go on to what Doman calls the vocabulary of the home: words denoting the child's toys and other personal belongings, words denoting well-known things in the house etc. The child should be able to see and touch the thing at the same time as the "teacher" pronounces the word and shows the card to him 2).

The domestic vocabylary also includes some verbs denoting simple actions well known to the child. The teacher may, to begin with, illustrate a verb by performing the action at the same time as he pronounces the corresponding word and shows the card. The domestic vocabulary should be written down in red letters 7.5 cm high.

All the time the "teacher" should be careful not to go on presenting new words without making sure that the child recognizes the old ones.

Then a book is provided. It should be a very simple and short book, not containing more than 150 different words. The letters should be 3/4 cm high.

The "teacher" copies the book, rewriting it in black letters 2.5 cm high. Then each word is written on a card, in 5 cm high black letters. These cards are presented to the child one by one in the same way as before.

When the child knows all the words, the words are put together to form the sentences of the book. The cards are put on the floor side by side, and the child now learns to read sentences, one sentence a day. When the child can read all the sentences of the book in this way he is given the handwritten copy of the book and is taught to read the sentences from this copy: reading left to right, from the top of the page to the bottom of the page.

When the child is well familiar with this handwritten copy, the printed book is presented to him. And now he will be able to read this fluently, in spite of the fact that the letters are only 3/4 cm high.3)

You go on with other books, and now it is not necessary to have an intermediate handwritten copy. All words new to the child are written down on cards and shown to him. When the child knows these words he gets the new book etc.

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2) In this way one makes sure not only that a strong association is established between the written and the spoken form but also that meaning is attached immedately to the written form.

3) Note the successive adaptation to smaller and smaller letters.

After the child has read one or two books, you write down the alphabet small letters and capitals, each letter on one card. You present the cards to the child, telling him the names of the letters like this: about a "This is a small 'ei' ", about A "This is a capital 'ei' ", etc.

It is to be observed that the child is not taught the sound values of the letters but is just given the conventional names - with the qualifier "small" and "capital" included in the name of the letter. This is obviously done to help the child to discern the letters within the word units.

By presenting the letters you no doubt draw the child's attention to the code. But as one avoids any kind of sounding and instead obscures what associations there might occur between letter and sound by adding the qualifier "small" and "capital" to the conventional name of the letter, this presentation cannot be said to help the child to discover the relations between letters and sounds. Nor, as the letters are presented in their alphabetic order without being grouped according to distinctive features, do you give any hints about the graphematic system; instead the child is left to make the discoveries totally on its own.

The real instruction given is purely technical and non-linguistic. The child is taught to read from left to right and from the top of the page to the bottom. The child is taught to turn the pages right-left.

By using the Doman method you leave it to the child to find out the interrelations between the codes of the written language and the spoken language all by himself.

The Doman method is, then, a way of presenting written material to a child with a minimum of instruction and through the medium of the spoken language.

Using the Doman method it is therefore possible to make observations about how a child discovers the correspondences between letters and sounds, how he succeeds in interrelating the graphematic and the phonematic systems - in "breaking the code" - which is the necessary prerequisite if he is to attain full reading ability.

Chapter Three

The experiment.

The experiment started at the end of September 1965. A girl, two years and four months old, was taught to read. During the first six weeks she was shown 50 concrete nouns and verbs.

From the middle of November the vocabulary of the first book was shown to her, and the girl read this book on the 22nd of December 1965.

The experiment was then continued with new books. All the time notes were taken about the girl's reactions and comments on reading-cards and reading.

At the beginning of March, 1966, the girl spontaneously tried to read some of the new cards I presented to her. These readings were noted down. At the beginning of April 1966 these spontaneous readings had become so frequent that I changed the method of showing new cards. Instead of taking a new card and saying "This reads X", I took the new card, showed it to her and asked "What does this read?". Often she suggested many different readings. Every attempt at reading was carefully noted down. In cases where the girl did not succeed in arriving at a correct reading, I finally read the cards aloud to her.

In August there was no reading because of my holidays. On September 1st the experiment was continued. At the beginning of November 1966 the child was able to read almost any new word presented to her on a card: the code had been broken.

From the beginning of December 1966 the child was given new books directly, without the intermediate stage of showing cards. The girl read the books aloud to me and I took notes. Some grapho-phonematic irregularities in Swedish (such as the spelling of /ç/) were not mastered by the girl until the autumn of 1967.

Chapter Four

First period (Sep. 30th 1965 - Dec. 22nd 1965):
From the first word to the first book

From the very first day the girl was enthusiastic about the reading cards. She treated the cards as if they actually were the persons or things written on them. The cards with mormor (grandmother) and morfar (grandfather) became favourites, and words with unpleasant associations were met with disgust ("Mother, I get so frightened when it says frightful on a reading card").

When we started with the vocabulary of the first book, the girl was shown a few so-called functors (prepositions, conjunctions, pronouns etc.). These turned out to be difficult to grasp. It is to be observed, that children learning to talk acquire - the often unstressed - functors later than nouns, verbs and adjectives, which normally have heavy stress (comp. Robert Brown and Ursula Bellugi "Three Processes in the Child's Acquisition of Syntax' (1964)).

Already at the end of the first reading month the girl observed similarities between different words: "Mother *mage* (stomach) is like *öga* (eye)".

In the third month of reading the girl learnt the word *precis*. She then observed: "*precis* liknar *pappa*" (*precis* is like *pappa*) - pointing at the *p* in *precis* - "men i *pappa* e de tre stycken" (but in *pappa* there are three of them).

This shows three things: 1. she was able to discern the letter *p* in *precis* and looked on it as an entity; 2. she was able to identify and sum up three samples of the same entity; 3. she had a visual image of the word *pappa* that was strong enough to enable her to pick out the three *p's* from it.

The visual image of the word *pappa* must have been very clear. This does not imply, however, that all the other words the girl was able to recognize were necessarily as clear in her visual memory. *Pappa* belonged to the early words; it does contain only two different kinds of letters; it is symmetrically built up with the double *p* surrounded by *a's* on each side, and it appealed to the girl's emotions.

Nevertheless her observations on *precis* and *pappa* give us a cue to the process behind the acquisition of reading ability: words are learnt visually and stored. As soon as a new word is introduced, this word is not only "put into the bag" but it is analysed and compared with the visual images of the words learnt before. By means of such comparisons structure is discovered.

Further evidence of this process is that the girl, when she was shown a new word that very much resembled an earlier learnt one, often told me to show her this earlier word. On being shown the new word *det* she said "*det* is like *dem*, show *dem* to me and let us compare".

Chapter Five

Second period (Dec. 23rd 1965 - March 31st 1966): The first attempts at spontaneous reading of new words

During this period functors still seemed to be a bit difficult, but the girl solved the problem by immediately putting them into a linguistic context. On getting *fram* (along) she said "Vi går *fram*" (We go along). Many other examples can be given.

From the beginning of March the girl made spontaneous efforts to read new words by herself.

The new words that the girl tried to read were all made up of material from words learnt earlier, i.e. they might be: 1. parts of already learnt words 2. combinations of words and/or parts of words learnt before.

The method of putting all the words of the books on reading cards gave me a complete index to the child's reading vocabulary. This enabled me to find very easily the patterns for every attempted independent reading of a new word.

According to how the girl made use of already learnt material when trying to read new words, the attempted readings could be divided into three groups, here called adjunctions, deletions and substitutions.

Adjunctions. On the 1st of March the girl was shown the new word bäcken and read it correctly. Earlier she had learnt to read bäck. The rest of the word was also well known to her as she had already met en as an indefinite article eleven times in her first book. I assume the underlying process producing the correct reading bäcken to be as follows.
1. First bäcken is analysed into two parts, bäck and en. The child is able to make this analysis because she is well acquainted with these parts as written entities.
2. The two parts are then read together, forming a spoken entity that is well known to the child and immediately associated with a meaning.
3. Thus the new graphic entity bäcken is tied to the corresponding spoken entity and is associated with the same meaning, all without the interference of the teacher.

Putting the stress on the second step in the process, which is the adding up of already known entities, we call this reading adjunction.

In the examples given above two parts already learned as separate graphic entities are put together. A more complicated kind of adjunction was made for the first time at the end of March when the new word pengarna was read correctly. Earlier the girl had learnt to read pengar. But the rest of the word, -na, does not occur as an isolated entity; it is a so-called bound morpheme, functioning as a definite article in the plural: pojkarna, flickorna, ballongerna etc. The adjunction here implies putting together one entity already learnt as a "word image" with another entity that is only a part of word images learnt before.

To be able to read pengarna the child must thus be able to recognize -na from previously learnt written words with this ending, i.e. she must already have made a grapho-morphemic analysis of these words.

At the moment of the independent correct reading of pengarna the girl had already met the following words ending in -na: tassarna, kattungarna, fjärilarna, fåglarna, grodorna, insekterna, blommorna. The question is now: How did she succeed in distinguishing -na as an entity?

Above we have shown that as soon as the girl learnt a new word, she compared this word with similar ones learnt earlier and tried to find out the differences between them. In two of the books read by the girl before she made the correct reading pengar-na she had met the word kattungar, which word appeared twice before she met kattungarna (compare above!). In the word pair kattungar - kattungarna the only difference is -na, and as soon as the child had found this out she had in fact made the grapho-morphemic analysis necessary to look at -na as an entity within the higher units tassarna, kattungarna, fjärilarna etc.

Theoretically she would now be able to read any previously learnt word + na.

Deletions. On the 2nd of March the girl read the new word ugglan. Earlier she had learnt ugglans. To make such a reading the girl must be able to analyse ugglans into ugglan + s, an analysis made possible by pairs occurring earlier, such as Anna - Annas, Astrid - Astrids, Mirran - Mirrans etc. I assume the underlying process to be as follows:

1. ugglan calls up the mental image of ugglans, learnt earlier;
2. ugglan is compared with ugglans and the difference is observed;
3. on the basis of pairs like Anna - Annas etc. -s has already been identified as a meaningful unit. This helps the readier to analyse ugglans into ugglan + s and to recognize the new word ugglan as ugglan(s).

If we stress this last part of the process we might call the reading deletion.

Substitutions. On the 25th of March the girl was shown the word hittade. She read it as hittde. Although unsuccessful, this reading was the earliest example of a third type of spontaneous reading on the basis of material learnt earlier.

An already known word was hittat. The graphemic sequence de was well known as a separate word (she had not met it earlier as a bound morpheme in verbs because her books so far had been written in the present tense). The mental process is assumed to be as follows: When being shown hittade the girl remembers first hittat then de. She realizes that hittade is hittat minus something at the end plus -de, and she then deletes -at and adds -de, that is substitutes -de for -at getting the (incorrect) form hittde. This reading might thus be called a substitution.

Adjunctions, deletions and substitutions are the result of an analysis of the presented words; we therefore choose to call these readings analytical readings.

During this period the girl also made technical progress in reading aloud.

When reading her first book the girl had been taught to point at the words. This was to accustom her to the left-to-right convention and to make sure that she did not skip any words.

On the 4th of March I noticed the girl sitting in a corner reading a book that she had finished a fortnight earlier. She read it whispering and without pointing. About three weeks later (March 23rd) she had just finished the reading-cards of another book and was going to read it aloud to me for the first time. She then read it without pointing. I did not make any comments to her about this, but I noticed that her reading now was much more like natural speech. When pointing she had been apt to make pauses between every word. After some minutes, however, she suddenly began to point, then interrupted herself: "No, it is much better not to point". "Much better" probably meant that she experienced reading without pointing as more meaningful. She was then able to take in bigger portions of the text at one time; her eyes could always be a good bit ahead of her voice and so the understanding of the text was better. Evidence of better understanding was the fact that her intonation, stress and reading rhythm improved when she did not point.

Chapter Six
Third period (April 1st 1966 - Oct. 31st 1966): Introduction.
The misidentifications

From April 1966 the girl is asked to try to read all new words by herself. Generally she makes at least one try to read every word. These tries may be analytical readings - right or wrong. They may also be so-called misidentifications, which means that a new word is mistaken for an already learnt word - as when mugg (cup) is taken to be mun (mouth) or sig (himself) is read sin (his). When making a misidentification the reader evidently is looking upon the new word as an entity.

It is significant that the proportion of misidentifications - where the new words are treated as entities - to analytical readings remains constant, during April, May, June, July and September, the analytical readings being 3.5 to 5 times as common as the misidentifications, until the month of October when the code is broken. Then the analytical readings become 18 times more numerous than the misidentifications.

The reason for this change is that in October when the code is broken - i.e. when the girl suddenly understands completely the correspondence between grapheme and phoneme - she begins to use a quite new analytical technique when trying to read new words that cannot be read by means of adjunctions etc. of previously learnt words or morphemes: she "sounds" the words letter by letter. Earlier, on being asked to read a word that resisted the operations of adjunction etc. she had often just suggested a word learnt previously that looked similar, i.e. made a "misidentification". At the time when, as soon as a difficult new word is attacked, the analytical-synthetical process of identifying graphemes, sounding them and adding the sounds replaces the mere "looking", we may safely presume that full reading ability is being attained.

Thus the increase in the analytical readings as compared with the misidentifications indicates that in October the girl is reaching the stage of full reading ability.

From what has been said above it might be concluded that the misidentifications are the result of an inferior kind of reading in which a new word is carelessly observed, without any kind of analysis, and mistaken for one learnt earlier. This is not true, however. Some of the misidentifications are the result of chance readings, but as a rule they are the outcome of most careful considerations.

An investigation of the misidentifications shows that certain rather constant relations, as to length, letters and position of letters, exist between a new word given and the word it is wrongly supposed to be.

As to the length of a new word given compared with the word it is wrongly supposed to be, the following observations have been made:

1. Out of 121 misidentified words 40 % (48) have been mistaken for words of exactly the same length and another 35 % (42) have been mistaken for words that are just one letter shorter of longer. 19 % (23) have been mistaken for words that are two letters shorter or longer and only 6 % (8) for words that are three to five letters shorter or longer.
2. Words shorter than three letters are not misidentified.
3. A word given that is three letters long or more is never mistaken for a word that is shorter than three letters.
4. Apart from this the length of a word assumed does not seem to differ from the length of the corresponding word given by more than about half the number of the letters in the word given.

5. It is also evident that the shorter a word given, the more often it is mistaken for a word of exactly the same length.

As to the *number of letters common* to a new word given and the word it is wrongly supposed to be, I have observed that when a new word is mistaken for a previously learnt word, *on average 65 % of the letters in the new word are contained in the previously learnt word it is wrongly supposed to be*.

In only 12 out of 121 cases of misidentification the *order* between the common letters is not the same in the new word given as in the word it is assumed to be.

At last the author has tried to find a way to measure *the degree of similarity* (S) between a word given and the word it is assumed to be, a way which takes into account the following facts: length of words, letters in common, order of common letters and position of common letters.

An investigation shows that this S is surprisingly constant. There is some tendency, however, towards a lesser degree of similarity when the word given becomes longer.

Chapter Seven

Third period (April 1st 1966 - Oct. 31st 1966): Analytical readings of morphemes

The growing reading skill - that is the gradual development towards an insight into the grapho-phonematic correspondences, and a capacity for using this insight actively when reading new words - is reflected in the *analytical readings*. Both independent and dependent morphemes are involved in the processes. Analytical readings with only independent morphemes might be considered as comparatively easy, because these morphemes may occur as separate graphic entities. The handling of dependent morphemes is, however, a bit more complicated, as these only occur tied to other morphemes. The reader must thus be able to abstract the dependent morphemes from previously learnt words in order to cope with them in analytical readings of new words presented.

The dependent morphemes are only gradually mastered. In the table below we have a survey of the use of simple dependent morphemes in analytical readings during the different months. The first appearance of a morpheme is marked with an italicized *x*.

	March	April	May	June	July	Sept.	Oct.
-a	x	x	x	x	x	x	x
-an		x			x	x	x
-ande				x		x	
-ar	x	x	x	x	x	x	x
-are			x	x		x	x
-d				x		x	
-de	x	x	x	x	x	x	x
-e			x	x	x	x	x
-el							x
-en	x	x	x	x	x	x	x
-er		x	x	x	x	x	x
-et			x	x	x	x	x
-ig			x				
-ing			x				
-is					x		
-it					x		
-n				x	x	x	x
-na	x	x	x	x	x	x	x
-or		x	x	x	x	x	x
-r		x	x	x	x	x	x
-s	x		x	x	x	x	x
-t			x	x	x	x	x
-te				x		x	x

When we looked at the analytical readings pengar+na and ugglan(s) above, we found that there were patterns in the earlier reading material which made these readings possible. An investigation of the 23 morphemes in the table above shows that 18 of these have clear patterns in earlier reading material, when they appear for the first time in an analytical reading. The five morphemes without immediate patterns (-ande, -d, -ig, -ing and -is) might themselves be explained as the result of analytical readings: -ing for instance might be looked upon as a deletion ing(en), where en (one) has been deleted from ingen (nobody).

Dependent morphemes are being used in analytical processes from March and on. As March is the very first month of analytical reading, it is quite evident that the processes themselves (adjunction, deletion, substitution) are very difficult to the reader. Deletion, however, being a passive process, must be easier than adjunction. In the same way the first part of a substitution (which is in fact a deletion) must be easier than the second part (which is an adjunction). An investigation of the material shows that during March and April dependent morphemes are always introduced in passive processes. From May onward, however, not only morphemes previously introduced figure in the active processes; all "new" morphemes occur directly in adjunctions and in the active part of substitutions. That the reader has attained greater skill in May is also evident from the fact that in this month for the first time we find correct readings of new words containing dependent morphemes without immediate patterns in earlier reading material (compare above).

The reader's growing skill also manifests itself in an ability to cope with more and more complicated structures. In March only single dependent morphemes are used in the analytical readings. But from April strings of morphemes also appear, as when the new bilarna is read correctly because the reading material already known contains bil and pairs like boll - bollar, klapp - klappar, ankor - ankorna, blommor - blommorna etc. from which the dependent morphemes -ar and -na might be drawn.

As time passes on, more and more strings of dependent morphemes are introduced into the analytical readings. A table of these strings and their occurence during the different months, with the first appearance of every string denoted by an italicized x, looks like this:

	April	May	June	July	Sept.	Oct.
-a-de	x		x	x	x	x
-a-de-s				x		
-an-de-s			x			
-ar-na	x	x		x	x	x
-are-n				x		

	~~April~~	~~May~~	~~June~~	~~July~~	~~Sept.~~	~~Oct.~~
-de-s			x			
-en-s				x	x	
-er-na		x				x
-ing-ar				x		
-lig-a		x				
-lig-ast						x
-lig-en						x
-lig-t					x	
-na-de					x	
-na-r						x
-na-s					x	
-ning-en				x	x	
-ning-s						x
-or-na		x	x			x
-r-na				x		
-st-e					x	

Now, what are the patterns for each one of these strings of dependent morphemes when they first appear in analytical readings?

Three cases occur:

1. There may be patterns for the whole string of morphemes, as when somliga (16.5) is read as an adjunction of som and -liga - - where the combination -lig-a might be drawn from vän - vänliga, which words occur already in March. When there are patterns for the whole string, the analytical reading is mainly of the same kind as where a simple morpheme is involved.

2. The process is more complicated, however, when there are patterns only for each one of the morphemes in the string, i.e. the reader must herself combine the parts. This is the case when bilderna (22.5) is read as an adjunction of the earlier learnt bild, -er, mastered

in April, and -na mastered in March.

3. We have a slightly more complicated case when one or more parts in the string has no immediate patterns but must be produced by means of analytical readings. This happens when, in September, jätteroligt is read as an adjunction, where -lig must be formed on the base of the already mastered -liga by deleting -a.

The material shows that the more complicated types 2 and 3 increase whereas the easier type 1 decreases as time is passing.

Now what about the wrong analytical readings? The number is steadily decreasing, from 44% in April to 25% in October. It should also be noted that the mistakes very seldom occur with the dependent morphemes: in only 13% of the analytical readings containing dependent morphemes there is a mistake involved in the reading of a morpheme during April - July; in September the percent is still lower, only 5. The mistakes instead occur with the bases of the words, as when gröten is read grönen, i.e. the base gröt (porridge) is supposed to be grön (green).

Chapter Eight

Third period (April 1st 1966 - Oct. 31st 1966): Analytical readings of graphemes

We have observed that the analytical readings start in March with simple morphemes; strings of morphemes do not occur until April and are only gradually mastered. In April there are also instances of readings of "false" morphemes. The word fönster-ruta (window-pane) is read as fönster + ut + a (window + out + "a"), where the identification of the a is made possible by the fact that -a has previously been learnt as a dependent morpheme and that -a in fönsterruta takes the same position as the dependent morpheme -a in grön-a, läs-a etc. - it is a "false" morpheme.

With the "false" morphemes the reader is not supported by the semantic component. To make the reading fönsterruta she must depend solely on her knowledge of grapho-phonematic correspondences in certain positions: that, for instance, an -a corresponds to an /-a/.

From here it is a short step, however, to the realization that a certain grapheme may correspond to a certain phoneme in many positions, some times in any position. When this is realized the reader has left the morphematic level and has entered the graphematic reading level. A still more advanced stage has been reached when the reader makes analytical readings using graphemes which are not homographic with morphemes, such as b, k, l, m.

A reading is, however, very seldom solely graphematic. Often one or two dependent and/or independent morphemes are [illegible] [redacted] in the reading process together with one or many graphemes. A reading is, however considered as graphematic when the child's way of reading or the child's own comments give clear evidence. A few examples should be given.

A misreading may often give us the clue to the reading process, as when gråta (weep) is read /grɔta/, with a short å-vowel, which shows that -åta has been mistaken for åtta (eight), part of the earlier reading material. Thus the reading process must be an adjunction of the grapheme string gr- and the independent morpheme (word) åtta.

Two or more successive readings might give us the clue. This is the case when ägg (egg) is read "lägg ... ägg": the earlier material contains lägger (puts) from which the morpheme -er is first deleted. Then the grapheme l is taken away. Other examples are länge read "hängde ... längde" (hängde was part of the old reading material), bur read "bu ... bur" and brum "rum ... brum" (bu and rum being part of the previous reading material).

Another way of reading which reveals what parts are observed is sectioning. When musikkår (band) is read /mʉ:s-i:-k-spɔ:r/ (the earlier material contains the words mus, (mouse) i (in) and spår (track)), it is evident that k is added as a grapheme to the rest.

The sectioning is a most important criterion of graphematic reading. At the end of October högre is read /hø:-gr-e/ in spite of the fact that the earlier reading material contains both höga and högar, which would lead us to expect the morphematic substitution hög/a, -re or hög/ar, -re. In this case, however, /hø:-gr-e/ is considered to be a graphematic reading on account of the sectioning, although there do exist patterns for a morphematic reading. It is to be observed that not until October do such instances occur.

Sometimes the girl herself reveals, by comments on the reading material, that the patterns she uses are graphematic. The earliest example is from the 16th of May. On being presented with the earlier unknown parken the girl reads it correctly. I ask her: "How can you read that?" She answers: "I have had marken before." The process must thus be substitution: m- in marken is replaced by p- .

Following Sture Allén the author makes a distinction between autographemes and syngraphemes. In Swedish the autographemes are a, e, i, o, u, y, å, ä, ö, the syngraphemes are b, c, d, f, g, h, j, k, l, m, n, p, r, s, t, v, w, x and z. Then the grapho-phonematic relations in Swedish are discussed.

The author then treats the readings where the girl handles *such syngraphemes as are not homographs of morphemes*. (The autographemes are excluded for two reasons. First some of them are homographs of independent or dependent morphemes. Second all autographemes correspond to one long phoneme-variant which is used when the alphabet is recited.)

Eleven syngraphemes without corresponding homographic morphemes appear in graphematic readings during the period of April - October 1966. In the table below first appearance has been italicized. If a grapheme during one month only occurs in passive processes - deleted or substituted - it has been put within parentheses.

April	May	June	July	Sept.	Oct.
	p	(p)	p	p	p
b	b	—	b	b	b
	m	—	m	m	m
			v	v	v
				f	f
	k	k	k	k	k
g			g	g	g
			j	j	j
		(h)	*h*	h	h
		l	l	l	l
					c

From the table above we see that more and more syngraphemes without homographic morphemes are used in graphematic readings: in April there are only *b* and *g*; then one or two further graphemes are added every month, until in October all 11 syngraphemes are used. It is to be observed that the syngraphemes with one or several phonematic correspondences are always read in the most "normal" way: *k* is read /k/, *g* /g/, *j* /j/ and *c* /s/.

When a graphematic reading is made, this means that the reader has realized the "sound-value" of a grapheme or a sequence of graphemes, which is to say the grapho-phonematic correspondence in question. Such correspondences must be drawn from the reading material learnt earlier. By reading words beginning in *ba* ... /ba:/, ba ... /bɷ:/, *bu* ... /bʉ:/, *bå* ... /bɔ:/, etc. where the second element is an autographeme, the sound value of which is known from the reciting of the alphabet, the specific sound-value of *b* is easily perceived. If we look at the first correct readings of syngraphemes (cf. the table above: *b* and *g* in April, *p*, *m* and *k* in May etc.) and examine earlier reading material, we will find that there are always such clear patterns in this material.

If we look at all the graphematic readings during the April - October period we shall find that very often there are strong patterns in earlier reading material for exactly the grapho-phonotactic structure of the surroundings of the grapheme thus read. This tendency seems, however, to be weaker in the readings of September and October, which should indicate a growing reading skill where the occurrence of direct patterns is no longer necessary for the reader to produce a correct graphematic reading.

Let us take a few examples. 13 graphematic readings of k from May to September all have immediate patterns for the grapho-phonotactic structure of the immediate environment of the k. We find k in the initial combinations skr-, kr-, kl-, kv-, ka-, ko-, in the final combinations -ka, -kade, -kar, -ken, and in the medial combinations -ik- and -uk-. In September, however, the reading /faskiti:sa/ - wrong for faktiskt - and in October the reading /k-i:-lade/ for kilade show a complete knowledge of the correspondence between k and /k/ without the support of surrounding graphemes. A k before an i being normally pronounced /ç/, there are no patterns for the correspondence ki /ki/. In the same way, the reading in October of förarhytten as /fø:rarhten/, where the y is overlooked, shows a sure knowledge of the correspondence h /h/.

The development towards analytical reading on the graphematic level is clearly illustrated by the fact that during the three last days of October the reader overlooks in many cases a more simple way of reading a word - through analysis into morphemes - and makes a more complicated graphematic reading.

As an example might be mentioned the reading of bakåt, where the easiest way would have been an adjunction of the wellknown parts bak and åt, but where the girl reads the word in three sections /ba: - k -ɔ:t/, isolating the syngrapheme in the middle of the word.

The final evidence, however, that the code has been broken and the child attained full reading ability was given on the 31st of December . Some weeks earlier I had told her a story in which the Nordic goddess Freja plays an important part. It may be noted that she had never seen the name Freja printed. On the 31st of December the girl asked me "Who do you think I am today? It begins with an f ... (spelling in a loud voice) f,r,e ... (almost silently, to herself) fre ..., frej ... (spelling again in a loud voice) j, a."

This transforming of a word from the spoken language to the written, from phonemes to graphemes, which is the reversed process to graphematic reading, gives full evidence that the code has been broken by the child.

After a period of 14 months the child has, by observing, learning, storing, analysing and comparing written words, and through the processes of adjunction, deletion and substitution - first of morphemes and graphemes homographic with morphemes, then of non-morphematic graphemes - arrived at a knowledge of the grapho-phonematic correspondences that is a prerequisite for being able to decode any written message.

Chapter Nine

Capital letters. Double syngraphemes. Some grapho-phonematic irregularities

New words written all in capitals are not mastered by the girl until November, i.e. when the code has been broken.

In Swedish double syngraphemes indicate a short vowel. Thus hat is pronounced /hɑ:t/, but hatt /hat/. This rule is not mastered by the girl until February - March 1967, and she still violates the rule now and then in April and May.

At the end of the chapter the grapho-phonematic irregularities of Swedish are discussed, and the girl's gradual mastering of the difficulties is described. All irregularities are mastered before November 1967. It is also evident that the rules are discovered gradually as the reading material affords patterns that might be imitated.

Chapter Ten

Conclusions. Some additional remarks on intonation, meaningful reading, application, appreciation, writing and spelling.

In this chapter the result of the experiment is compared with the recommendations of Jeanne Chall, that the child should be taught the code. An important thing is that the children studied in the research work mentioned by Jeanne Chall are school children who start learning to read at the age of five and a half to seven. With Lenneberg, Chomsky and others in mind, we may suggest that a child two to three years old, the age of the extraordinary linguistic capacity, might profit more from a method which enables him to find out of the system all by himself.

At last some additional remarks on intonation etc. are made. The girl was not taught intonation when reading aloud, nor did she receive any instruction about punctuation marks. She also here found out by herself. It seems that much of this discovering was made when she reread the books. I sometimes noticed her sitting practising different intonations and stress patterns when rereading the books aloud to herself.

From the very beginning the girl intimately connected reading and reality. New words on reading cards were often, in the girl's comments, put in relation to known linguistic and non-linguistic contexts. On reading the surname Larsson she interrupted herself saying: "The little baby's father living down there, he is called Larsson, and her grandfather (i.e. the baby's) is a bit bald".

Naturally, reading was experienced as more meaningful when the girl read about things that were well known to her from real life. But I have also witnessed that when she had first read about certain things and phenomena in her books, her later experience of the thing in real life became much more intense and rich than it would probably have been without the literary anticipation. Thus her first sunset, experienced in August, 1967, was a sheer delight; and the first time she saw cows grazing she was in a rapture, stopped and shouted in a voice full of joy: "Oh, this must be a pasture!" The sunsets and pastures of literature had finally come to life.

The girl's books also inspired her non-verbal life in many other respects. She often introduced scenes from books into her games, building houses after having read The New House, constructing roads for her cars after having read The New Road. Last but not least, she identified herself with all the heroes of the literature she read.

The problem of fiction and its relation to reality was very keen to her. When, at the age of three years and nine months, she was reading the Dutch author Ninke van Hichtum's book about Mother Afke's ten children she asked: "Have these people really existed:" "Possibly", I said. "Yes", she replied, "for if so, we will meet them in Heaven and then they can teach us to speak Dutch".

It is also evident that a small child can appreciate literature. An example is given at the end of chapter ten:

A favourite book was The Children's Bible by Anne de Vries. I noticed that the girl often stopped her oral reading of the Bible after having finished a very dramatic passage, and then she went over this passage again, silently. On the 21st of October, 1967, at the age of four and a half, the girl had read about the crucification. She went back and reread the passage telling how Jesus asks St. John to take care of his mother Mary and be like a son to her ("When Jesus therefore saw his mother, and the disciple standing by, whom he loved, he saith unto his mother, Woman, behold thy son! Then saith he to the disciple, Behold thy mother! And from that hour that disciple took her unto his own home".) She ten said: "Det här var en fin liten dikt.

Mittemellan det hemska var det en fin liten dikt". (This is a fine little poem. In the middle of all the frightful things there is a fine little poem.)

At about the age of three and a half the girl began trying to write letters herself. For some reason she concentrated on the capitals. By June of 1967 she could write all capitals except B,J,M,N, Q,U,V and X; in July only X was still missing, and she then also failed to write G and Y. On the first of November, 1967, I tested her again and found that she then could write the whole alphabet, capitals and versals. By that time she had also begun to write little missives to invented persons.

When the girl was four and a half her spelling had already become remarkably good. Now, at the age of seven and a half she simply knows how to spell and needs not devote any time to learning how. This skill, which is normally attained only after many years of hard school work, had come to her quite unconciously as a by-product of her early reading. Would it not be a good thing if all children had this experience: of learning to read as easily as they learn to talk and of learning to spell without knowing that they are learning how; of having attained full literacy at an age when children normally begin to learn the ABC? During the first school years a lot of time and hard work is now being devoted to acquiring the elementary skills of reading and spelling. With these skills already at the pupil's command there could be time for more meaningful and stimulating work and activities at school. Thus still more could be made of the wonderful, receptive and harmonious years before puberty.

Chapter Eleven

Suggestions for further investigation

Here it is stressed that this preliminary study of one single child being finished, the experiment should be carried out on many children of the same age, let us say 100 - 150. Such an extended study might be done by a team of linguists and psychologists.

These 100 - 150 children should be followed through the years, and the effect of early reading on their general and linguistic development investigated on.

Similar studies might also be carried out on children speaking other languages than Swedish. Do different languages raise different problems? Is it easier to find out of the code of written Finnish, which is almost completely phonematic?

Might early reading along these lines be of importance to retarded children? What about deaf children, if spoken language as a medium is replaced by picures, gestures and film?

There are numerous tasks involved in further investigation on this subject. As I see it, there is great hope that both normal and retarded children might benefit from this approach to attaining literacy, where learning to read is defined as learning a written language and where the learner is therefore exposed to suitable reading material at the age when spoken language is normally acquired - not acquired because the environment imposes language upon the child at that age, but because the child has then reached a biological stage where his preparedness for language is at its prime.

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HOME-ORIENTED PRESCHOOL EDUCATION

by

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Home-Oriented Preschool Education

The well-being and wholesome development of the individual during infancy and early childhood years is recognized by an increasing number of psychologists and educators as crucial. The importance of training in the formative years is predicated on the assumption that there is a high positive correlation between formalized preschool training and later performance in school and in society. The widespread acceptance of this hypothesis is clearly demonstrated by the nation's investment in Head Start. Additional evidence is contained in the many proposals, from Montessori[1] to Bloom[2], for early educational intervention into the lives of culturally disadvantaged children.

The traditional way for meeting this need in the past has been to establish public kindergartens. These have generally been limited to urban and suburban areas, however, and no state or section in the United States has provided an adequate program of preschool education to rural children. Neither has any of them begun preschool education for children under age five, although it is known that educational nurture should begin at an earlier age.

Two conclusions that may be drawn are that conventional kindergartens are not providing adequate preschool education for all of the children of America who need early formal training to enhance their chances for success in life and that an alternative program for providing preschool education at an earlier age and to rural children needs to be developed.

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[1] Fred M. Hechinger, Ed., Pre-School Education Today, Doubleday and Company, Inc., New York, 1966, pp. 58-60.

[2] Lester D. Crow et al, Educating the Culturally Disadvantaged Child, David McKay Company, Inc., New York, 1966, pp. 118-119.

Such an alternative program is needed especially in Appalachia where the population is largely rural and where publicly supported kindergartens are not available for the most part. Poverty and cultural deprivation strike deep in Appalachia, and many children caught in its pockets of social poverty have been doomed to lifelong separation from opportunities the outside world of America increasingly values as the inherent right of every child. The adults in the life of the average Appalachian child cannot provide sufficient means of escape because they themselves are victims of the same incapsulation.

West Virginia, the only state lying wholly within Appalachia, has taken a step which may lead to its becoming the first state to actually make preschool education available to all eligible children, rural as well as urban. On March 13, 1971, both houses of the West Virginia Legislature passed Senate Bill Number 343 (Mr. McKown, original sponsor) which specifically provides for an alternative to the usual classroom-oriented kindergarten.

The bill first provides for the West Virginia Department of Education to develop criteria and guidelines for certification of both professional and paraprofessional personnel and for the establishment and operation of both public and nonpublic early childhood education programs. It then states:

> Pursuant to such guidelines and criteria, and only pursuant to such guidelines and criteria, the county boards may establish programs taking early childhood education to the homes of the children involved, using educational television, paraprofessional personnel in addition to and to supplement regularly certified teachers, mobile or permanent classrooms and other means developed to best carry early childhood education to the child in its home and enlist the aid and involvement of its parent or parents in presenting the program to the child; or may develop programs of a more formal kindergarten type, in existing school buildings, or both, as such county board may determine, taking into consideration the cost, the terrain, the existing available facilities,

> the distances each child may be required to travel, the time each child may be required to be away from home, the child's health, the involvement of parents and such other factors as each county board may find pertinent. (Senate Bill 343, lines 38-56, inclusive)

The language of Bill 343 can be recognized as having direct reference to the early childhood education program of the Appalachia Educational Laboratory. Two factors cited above--the persisting cultural deprivation of Appalachia and the importance of early years to later development--first prompted selection of early childhood education as a priority endeavor of the Laboratory. It was evident that separation of Appalachian children from the opportunities afforded by a preschool education was an obstacle to their wholesome development and well-being and had an accumulative debilitating effect on performance in school.

The strategy for the achievement of the objectives of the Appalachia Preschool Education Program has been the development of a child-centered, home-oriented program to be delivered by means of television broadcasts, home visitations, mobile classrooms, and other media. It has involved building a curriculum based on behavioral objectives and preparing materials and methods particularly appropriate for children of three, four, and five years of age living in rural Appalachia.

The physical constraints of Appalachia were factors which influenced selection of the strategy. Isolated schools (532 one-room schools in the region in 1967) in remote sections of a sparsely populated and mountainous region and a primitive road system precluded establishment of conventional classroom-oriented kindergartens common in urban areas. Further, funds are not available for this approach; and even if they were, prepared teachers are not available (67 certified preschool teachers in West Virginia in 1969). The establishment of such kindergartens would require a ten percent increase in classroom space, equipment, and auxiliary services. More importantly, however, the traditional design does not include instruction of three- and four-year-old children and thus does not provide sufficiently the readiness training required for first graders entering school.

Another factor influencing the selection of the strategy was the presence of a television set in over 90 percent of the homes in Appalachia. Most preschool children in these homes watch television several hours a day, with 80 percent watching two hours or more.[3] It was assumed they could be guided into viewing and participating in instructional broadcasts.

Parents, even those with low aspirational levels, usually want their children to have better opportunities than they have experienced. On the basis of their participation in Head Start, it was assumed that these parents would maintain schedules and participate in learning activities beneficial to their children if stimulated in the effort by home visitors.

Since the research community had shown renewed interest in early childhood education in recent years, it was possible for the Laboratory to find information useful in its developmental effort. This included work completed and in progress on Head Start; activities of research and development centers such as the University of Georgia's Center for the Stimulation of Early Learning; the resources of the National Laboratory for Early Childhood Education and its affiliates, such as the Demonstration and Research Center for Early Education at George Peabody College for Teachers; and the research done by Deutsch, Bloom, Segal, Piaget, Bereiter, and others.

The Laboratory program would provide preschool training without the constraints imposed by the traditional approach. In both the traditional approach and the one proposed, the objective is to facilitate development in language, cognition, psychomotor, and orienting and attending skills. The unique difference of the Appalachia Preschool Education Program is the method of linking teacher and learner. It would serve essentially the same number of preschoolers with the same number of personnel but would alter the roles and responsibilities of personnel by delivering the program via television, mobile facilities, and paraprofessionals.

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[3] Frank H. Hooper and William H. Marshall, The Initial Phase of a Preschool Curriculum Development Project, Final Report, Morgantown, West Virginia, 1968, pp. Q-27, Q-29.

A survey of the literature disclosed that much attention had been given to inner-city, disadvantaged preschoolers and to urban or suburban middle-class kindergarten pupils, but very little was known about the rural child. In order to conduct a study of the characteristics of the rural preschool child in Appalachia, a sample of 160 children in Monongalia and Upshur Counties of West Virginia was selected. One group was rural farm and the other rural nonfarm as defined by the United States Census Bureau. The findings of this survey provided the following information: The family in rural Appalachia is basically stable and intact. Ninety percent of the homes had both the father and mother present. Negroes amounted to about eight percent of the total population, which is near the West Virginia average. About 45 percent of the parents fell in the 11th and 12th grades as the highest grade completed. About 60 percent owned their own homes. The income of approximately 68 percent of the families was below $4,000 per year. The aspiration of the parent for the child in school was higher than their own accomplishment. Sixty-five percent want their child to finish college, but this is not attainable in West Virginia at the present time. Currently less than 30 percent are completing college. One portion of the survey asked how often the child was read to by others. If the child was a first child he was read to by almost 85 percent of the parents. The incidence of reading for the second child dropped to about 40 percent, and the third child was read to in only 12 percent of the cases responding.

A second portion of the survey was an intellectual assessment. The instruments used in this assessment were the Peabody Picture Vocabulary Test, the Stanford-Binet Intelligence Test, Kagan's Matching From Familiar Figures Cognitive Tasks, Kagan's Draw a Line Motor Inhibition Tests, the Illinois Test of Psycho-Linguistic Ability, the Frostig Developmental Test of Visual Perception, and for the five and one-half and six and one-half year-old children only, a series of Piagetian Tasks. The summary statement is as follows: "This initial assessment reveals a picture of cultural diversity rather than uniform cognitive intellectual deficits. These deficits tend to center upon verbal tasks or those problem settings which demand symbolic representation."

On the Peabody Picture Vocabulary Test, the IQ scores were below the national average at every age level, particularly so for the females in the sample. On the Stanford-Binet, the IQ of all age groups was in the normality range. In every comparison the child was more likely to pass performance type items than verbal items. On the Frostig, performance on figure, ground and form constancy was notably weak. Dr. Frostig considers these tasks particularly relevant to reading readiness. On the Illinois Test of Psycho-Linguistic Ability there are nine theoretically distinct subtests. In the auditory vocal sequential subtest, the auditory decoding, and the visual decoding subtests, performance was considered adequate. On two association tasks there appeared to be intermediate difficulty. The coding tasks, visual motor sequential tasks, and auditory vocal automatic tasks revealed the greatest deficits and also showed increased decrement with age. On the Piagetian tasks, performance was quite adequate for the age range which was five and one-half to six and one-half years. Males were superior to females on all conservation tasks at both age levels.

Finally, a basic curriculum expressed in terms of behavioral objectives was written for the guidance of the people who would be implementing the program. These objectives were divided into cognitive skills, language skills, psychomotor skills, and orienting and attending skills. It was understood that this list would be subject to revision, addition, and deletion as the project continued.

Concurrent with the above work, the staff of AEL was engaged in finding the people, the place, and the facilities required to implement the program.

The place sought for the field test was one which would a) be typical of rural Appalachia, geographically, economically, and in population pattern; b) have local school people interested in seeing an innovative preschool program in their area; and c) be served by a local television station willing to cooperate on the necessary broadcasts. Such an area was found in southern West Virginia in the counties of Raleigh, Fayette, Summers, and Mercer.

A survey of five television facilities was made in the search for suitable production capabilities. A contract was signed with WSAZ-TV of Huntington, West Virginia, to use its Charleston studio. This contract provided for office space, studio space, videotape recording equipment, and technical personnel to operate the equipment. Technical equipment and personnel were available two hours per day on a set schedule.

A specially designed mobile classroom was ordered from a manufacturer in early July, 1968. Due to procurement difficulties, this unit did not begin operation until early February, 1969.

It had been decided that a high degree of correlation between components would be required to make the program most effective, and the way to achieve this correlation would be to have all curriculum planning and materials designed and produced by one group of people. A five-member Curriculum Materials Team was assembled to begin work on July 1, 1968.

The field test began in September, 1968.

The Curriculum Materials Team set up natural groupings of objectives and from them constructed units of work and an allocation of the time to be devoted to the unit. It then decided on a theme to use as a vehicle for presenting and teaching those objectives. Each person on the Team had his or her own responsibility to one element; however, the group worked closely together to maintain correlation. For example, the person writing the home visitation materials knew what had occurred on the television program for any given day. A poem used on television might be printed and sent to the home or to the mobile classroom. The Curriculum Materials Team produced all of the curriculum materials--tapes, children's worksheets, parent guides, mobile classroom guides, etc.

At first the Curriculum Materials Team was guided by the information provided about Appalachian preschoolers in the West Virginia University research. This helped to determine level of concepts to be presented, emphasis to be placed on various skills, and so on. However, a feedback loop had been built into the design so that after only a very short period of time it was possible to incorporate actual observations of children into the planning process.

"Around the Bend," the television element, was a 30-minute broadcast which was on the air at 9:30 a.m. five days a week from the end of September until the middle of May. This period of time was selected to conform to a school year, since it is anticipated that eventually local school systems will be administering the program.

The on-camera teacher is not presented as a teacher, per se. Instead, she is a friend who invites the young children into her home where she talks to them about things of interest to them.

Film shot on location allows teacher and children to explore other places together, such as an airport or a library. The broadcasts are not "teachy," but are designed so that the child has fun as he explores new ideas and new things.

This is not to say that preschool activities are overlooked. Some of the concepts explored include large and small, same and different, classification, seriation, numbers and numerals, and letters. There also are rhythmic activities, body movement, sounds, textures, and weather.

Participation by the children is encouraged, both physical and mental, and feedback from the homes indicates that participation is enthusiastic on the part of most of them. Questions are asked and children respond. Activities are demonstrated and then the teacher and the children perform them together.

The home visitors were recruited from the area in which they were to work. The requirements specified that the applicants were to be 20 years of age or older, hold a driver's license, have a car available to them, and be a high school graduate or equivalent. The eight home visitors employed ranged in age from 20 to 60, in education from General Educational Development Diploma to two years of college, and in previous work experience from housewife to substitute teacher and Head Start aide.

The home visitors were given three weeks of intensive training before beginning their duties. The first two weeks were provided by a consultant from the National College of Education who had had previous experience in training Head Start aides and similar paraprofessionals. Time was spent on child development, particularly for the relevant ages to this project and to teaching techniques and materials for preschool children. The third week was devoted to sensitivity training, particularly interview techniques and acceptance of conditions as they are found. The sensitivity training was provided by Psycho-Dynamics, Inc.

The first thing that paraprofessionals had to do was to recruit the sample. In order to do this each was assigned a certain territory to survey for preschool children. Thus, the initial contact with the home was made by the paraprofessional and was maintained through her. Parents with preschool children were asked if they would like to have their children participate. Less than five percent declined. From those who were agreeable, a sample was selected and the program got under way with the home visitor making a weekly visit of approximately one-half hour each. Her effort was directed toward helping the parent help the child. In order to do so she pursued three activities.

The first related directly to the television broadcast. During her weekly visit she explained the theme of the coming week's episodes and told the mother of items which the child would need in order to participate. These might be household items, such as buttons or acorns for counting, or the home visitor might deliver an item not usually found at home, such as finger paint, and remind the mother to spread out lots of newspapers. There might also be a sheet prepared by the Curriculum Materials Team which pictured the three bears which mother needed to cut out so the child could have samples of large and small as the teacher talked about the concept.

Secondly, the home visitor provided a set of suggestions for games or activities which complemented the TV episodes but were not dependent on them. These were aimed at the same set of objectives but were intended for use at any time during the week. These were also produced by the Curriculum Materials Team.

As a third facet to the job, the home visitor was an adult interested in children. As such, she provided a strong motivation for the mother to maintain her interest in the child and to follow through on activities. She also provided a broadened horizon for the child. In many instances she was the only adult other than family members to visit the home during the week.

In addition, the home visitor was the prime source for feedback for the team. Each day she watched the TV broadcast with a child in order to make a direct observation. During the remainder of her visits, she talked with the mother and child about their reactions to the program and reported these to the Curriculum Materials Team. Each home visitor saw approximately 30 mothers per week.

Designing the mobile classroom was a four-stage process. A consultant with experience in designing mobile facilities of many types, a professor from Pennsylvania State University, was employed by AEL. He drew up the basic design and specifications. His design was then submitted to a panel of early childhood people who made several suggestions which were incorporated into a second version. The Curriculum Materials Team suggested certain items to be included in order to implement program ideas which were felt to be important. Finally, the chief designer for a firm engaged in the manufacture of such equipment drew a final design which incorporated features required by sound engineering practices. Construction followed this final design.

The facility is an 8 feet x 22 feet box on a truck; overall length is 28 feet. Inside it is fully carpeted, electrically heated, air conditioned, contains its own water supply, and has a chemical toilet. All the furniture is child sized--low tables, small chairs, low sink--in other words, a custom designed unit for children. It is colorfully decorated so that it is a pleasant place to be.

The mobile classroom was staffed by a professional preschool teacher and an aide. They had at their disposal a complete audio visual unit, a cooking area, chalk board and bulletin board, cabinet space, bookshelves, a sound-activated colored light display, and books, toys, and games galore.

Into this setting was introduced a group of 10 to 14 children for one and one-half hours per week. There were individual activities, group activities, a snack time, and each activity was aimed toward the same group of objectives that the other two elements of the program had for that week. The Curriculum Materials Team prepared the list of objectives and some suggested activities and the mobile classroom teacher working within this framwork drew upon her own professional skills to provide a group experience which was educational, interesting, and fun for the children.

Ten locations were visited each week by the mobile classroom. It was driven by the teacher or her aide and was attached by them to a power supply at a centrally located spot--a church lot, school yard, or community center. The parents brought the children and picked them up later. Many walked, some came in pickup trucks, and some in a Cadillac.

The summative evaluation of the AEL Early Childhood Education Program was based on program effort, program performance, and program pervasiveness. Program effort is defined as material and personnel requirements, and program performance includes achievement gain by the children and attitudes toward the program by both children and their parents. Program pervasiveness is the extent to which a population is expected to use the program or, otherwise stated, the program market. Therefore, the three basic questions to be answered by summative evaluation of the ECE Program were 1) What is required?, 2) Does it work?, and 3) Who will use it?

It was hypothesized that there would be differences in the behaviors of children receiving the home-oriented preschool program as compared to the behaviors of children not receiving such a program. The combination of the three elements was expected to be more effective than the combination of television and home visits, and either combination was expected to be more effective than television alone. Further, it was predicted that there would be evidence that a home-oriented program would be an effective approach to providing a preschool program to rural children.

To test these hypotheses, a research design of four treatments was prepared. The treatments were:

Treatment I (T_1) - Intervention through a daily television broadcast, a weekly visit by a paraprofessional, and a weekly visit to a traveling classroom.

Treatment II (T_2) - Intervention through a daily television broadcast and a weekly visit by a paraprofessional.

Treatment III (T_3) - Intervention through a daily television broadcast.

Treatment IV (T_4) - No intervention.

The variables of age and sex were controlled so that there would be nearly equal numbers of boys and girls and nearly equal numbers of three-, four-, and five-year-old children during each year of the three-year field study. Ages were computed as of the birthday preceding November 1 of each year. There were approximately 150 children in T_1, T_2, and T_3 each year of the field study. The size of T_4 ranged from 26 during 1969-70 to 120 during the final field test year.

Program performance was defined theoretically as learning which occurred in the target population--three-, four-, and five-year-old children--as a result of the AEL Early Childhood Education Program. Learning was classified according to language, cognition, psychomotor, social skills, and affective categories.

Language was defined operationally as responses to the Illinois Test of Psycholinguistic Abilities (ITPA). Cognition was defined operationally as responses to the Peabody Picture Vocabulary Test (PPVT), and responses to the Appalachian Preschool Test of Cognitive Skills, a criterion referenced picture test similar in format to the PPVT and ITPA. Psychomotor development was indicated by scores on the Marianne Frostig Test of Perceptual Development, and the social skills achievement by children was measured by a specially designed interaction analysis technique. Interest was defined operationally as responses to attitude checklists developed by AEL staff and responses reflected in anecdotal records systematically collected during the year.

The first year of the field study was September, 1968, to June, 1969, and an evaluation report was prepared based on data collected during that year.[4] The children who received pre- and post-tests included a rather small sample of 34 in T_1, 29 and T_2, 32 in T_3, and 26 in T_4. The results from the first year indicated gains for the mobile classroom/television/home visitor group (T_1) and the television/home visitor group (T_2) on areas of the ITPA most related to program objectives such as verbal fluency and the ability to make coherent descriptive statements about physical objects. Also, the T_1 group exhibited gains on certain subtests of the Frostig which indicated increased figure-ground and embedded figure discrimination, both of which skills are thought to be highly related to reading readiness. However, no consistent pattern of gain for T_1 and/or T_2 was observed as a result of the first year's field test.

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[4] Evaluation Report: Early Childhood Education Program, 1968-1969 Field Test, Charleston: Appalachia Educational Laboratory, 1970.

Much of the second year's summative evaluation (1969-70) was based on post test scores of 40 children in T_1, 31 in T_2, 44 in T_3, and 45 in T_4.[5] The sample included approximately the same number of children in each sex and of ages three and four as of October, 1969. One of the analyses completed on the test data was a 4 x 2 x 2 analysis of variance (four treatments, two sexes, and two age groups). The means and significance levels of differences among the means for the different subtests of the ITPA, APT, PPVT, and Frostig are presented in Table 1 for each of the treatment groups.

The pattern of differences among the treatment group means for the ITPA indicates a definite trend toward increased language development for children in the treatment groups which received the ECE intervention. The significant treatment effect for the measure of transformational grammar (Subtest 7) was considered particularly important since disadvantaged children of the Appalachian region have been previously shown to have large deficits in this area of language ability.

The differences in scores on the criterion referenced test of cognitive objectives (APT) favored the two groups which had received the mobile classroom and/or home visitors overthe group which received only the teleivison program. The two treatment groups which received visits from the paraprofessional (T_1 and T_2) also scored significantly higher on the PPVT, which was essentially a measure of vocabulary level.

In the psychomotor area which was measured by the Frostig, the treatment groups with the ECE intervention were definitely superior to the

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[5] Evaluation Report: Early Childhood Education Program, 1969-1970 Field Test, Charleston: Appalachia Educational Laboratory, February, 1971.

TABLE I

Mean Scores of Each Treatment Group on each Subtest of the ECE Testing Battery and Significance of Differences

Instrument		Description	Treatment Groups T_1	T_2	T_3	T_4	Sig. (Treatment)
Language							
ITPA	1	Vocabulary and hearing level	21.5	19.5	19.0	17.4	-
	2	Ability to match from a sample	14.3	12.6	12.6	11.8	-
	3	Vocabulary auditory association	16.6	15.5	14.1	13.3	-
	4	Association and stimuli goal	15.8	15.1	13.0	12.4	-
	5	Ability to describe objects verbally	9.7	9.4	8.0	11.4	$<.025$
	6	Vocabulary and ability to communicate gestures	23.0	17.5	17.9	17.2	$<.025$
	7	Ability to make grammatical transformations	11.3	12.2	9.4	10.9	$<.05$
	8	Figure ground discrimination	12.9	11.9	12.8	13.8	-
	9	Auditory recall	18.5	18.8	18.5	17.1	-
	10	Visual recall	8.9	11.7	9.0	9.6	$<.025$
ITPA TOTAL			151.2	144.9	133.8	132.0	-
Cognition							
APT	2	Test of cognitive objectives	29.8	30.7	23.7	27.5	$<.0005$
PPVT Raw Score		Peabody Picture Vocabulary Test	46.4	45.0	39.8	42.8	$<.05$
PPVT IQ		IQ	98.2	98.1	90.3	92.5	$<.10$
Psychomotor							
Frostig	1	Hand-eye coordination in line drawing	11.9	13.6	11.3	6.6	$<.0005$
	2	Figure ground discrimination	8.5	9.2	7.2	7.6	$<.05$
	3	Recognition of geometric shapes	3.8	5.6	5.0	3.6	$<.05$
	4	Discrimination of figural rotation	3.7	3.9	3.7	2.6	$<.0005$
	5	Analysis and reproduction of simple patterns	2.1	2.0	1.6	1.8	-
FROSTIG TOTAL			26.9	31.0	23.3	20.1	$<.001$

T_1 = Television program/Home Visitor/Mobile Classroom
T_2 = Television program/Home Visitor
T_3 = Television program
T_4 = No intervention

Definition: ITPA is Illinois Test of Psycholinguistic Abilities; APT is Appalachia Preschool Test (a Laboratory developed criterion referenced test); PPVT is the Peabody Picture Vocabulary Test (a measure of IQ); Frostig is the Marianne Frostig Test of Perceptual Development.

nonintervention group in eye motor coordination and visual perception. Significant differences in favor of the program groups were found in four of the five measures of perceptual ability. These differences were attributed to the emphasis on artistic and graphic activities which occurred throughout the ECE program.

It was hypothesized that exposure to the mobile classroom would result in the development of social skills important to learning. A sample of 54 children from T_1 and 51 children from T_2 were videotaped as they placed model furniture in a model house in groups of three or four. There were approximately equal numbers of each sex and of three-, four-, and five-year-old children. Their behavior was coded according to predetermined categories and then analyzed through interaction analysis techniques. The children who participated in the mobile classroom gave indication of having developed more constructive social skills than children who had received only the home visitor and the television program. The age group which benefited most from the mobile classroom experience was the three-year-olds, and many social skills which would normally show in four or five-year-old children were already developed among the three-year-olds who had the mobile classroom experience. The children who did not receive the mobile classroom intervention were observed to be more withdrawn and tended to leave the task more often than children who had received the intervention.

Interest inventories completed each week by the home visitors indicated that the television programs produced during the second year (1969-1970) were more effective in eliciting responses from children, maintaining a positive attitude among the children, and generating enthusiasm from children than were programs produced during the first field test year. This measure of attitude toward the ECE program indicated that both parents and children have favorable attitudes, but the attitudes of both tended to be less positive in late October, early January, and late February.

A survey of the audience appeal of three children's instructional television programs was completed through West Virginia University so as to control for bias due to association with AEL. On a measure of general appeal by T_1, T_2, and T_3, the number of first place ratings for Captain Kangaroo was 39 percent, for Romper Room 12 percent, and for AEL;s black-and-white Around the Bend 51 percent. Practically all (89 percent) of the T_1 group parents reported that they watched the ECE television programs regularly with their children.

According to field study results, eight professionals and three support staff would be required for production of curriculum materials including television lessons regardless of the number of children to be served. In addition, one certified teacher and one aide would be required for each 150 children, and one paraprofessional home visitor for each 37.5 children is required.

Based on ECE 1969-70 field test costs, the program can be delivered to 25,000 children for an operational cost of $250.33 per child. An additional capital outlay cost of $21.98 per child (if amortized over five years) would be required.

These costs are approximately one-half of the cost of a standard kindergarten program in the state of West Virginia according to statistics provided by the West Virginia Department of Education. The per pupil cost of operation for a kindergarten program was $496 during 1969-70, and the capital outlay costs were found to be more than 7.5 times greater than that for the ECE program.

The ECE evaluation has indicated that children who experienced the program have increased language development and cognitive learning, greater psychomotor and social skills development, and that the parents have a favorable attitude toward the ECE intervention. The cost of the program was found to be approximately one-half that for the standard kindergarten program.

The Appalachia Educational Laboratory Early Childhood Education Program was developed for the rural child. It can, however, be used in many areas of the United States where children are not presently being reached by existing preschool programs. Multi-ethnic groups have been identified as possible recipients, as have isolated American Indians, bilingual children, Chicanos, migrants, rural southern blacks, and mountain children. All of these might be characterized as children who seldom are encouraged to develop a healthy self-concept and pride in their cultural heritage.

STYLE AND DIALECT SELECTION IN HINDI-BHOJPURI LEARNING CHILDREN

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In researching child language and especially child bilingualism some of the problems met with in linguistic study of adults are both redoubled, and made more obvious and inescapable. We are forced for one thing away from the comfortable notion of language as state and to a view of language as process in the developing child. We thus may incline towards the explanatory power of mentalistic models in current psycholinguistics, towards criteria of testability and psychological reality, and towards more emphasis on semantic analysis. Another problem of studying such bilingualism is that of terms definition. Are we justified in simply transferring concepts inhering in and surrounding terms such as dialect or style from the adult Western or European framework a) to children or b) to a very different social and linguistic complex as India presents? Should we perhaps re-define the semantic distinctive features for these terms to increase their discriminatory and explanatory powers in accordance with what we find in the field? And can we safely ignore the importance of paralinguistic, kinesic and other contextual features in the study of child language acquisition, particularly bilingual? These questions are here illustrated in the context of dialect-style learning by children of Banaras in North India.

Necessarily, in order to work at all on discovery procedures in child language acquisition and in bilingualism, and to integrate our findings into a more comprehensive field of enquiry, we utilize and adapt systematic assumptions from the general discipline of linguistic research with adults and monolinguals and the resultant theory, both structural and generative. This being a much larger, better-worked and established field than the subdisciplines concentrating on language learning or bilingual processes, it is only reasonable that we should expect to bring to bear its current concepts and methods when working with bilinguals and with children, to ask questions related to current general questions of theory and method, and then to relate these matters to the field at large. However, this has its drawbacks as well as its advantages. Some methods and terminology, by the very fact of this extension of the field of research, may well need to be reconsidered and their meanings reshaped and broadened to fit the larger context. Basic orientation may also require adaptation to different language and culture systems, as their defining features and the domains based on these may segment and structure 'reality' in ways unexpected by the researcher. This again may serve to indicate needs to broaden theory; and this is, after all, the history and process of any growing discipline. However, though we are coming to expect this broad kind of adaptability in bilinguals and in young children, we as system-oriented scholars may sometimes be less ready or able to adapt our own thought and research behavior sufficiently to other systems.

In the case of children and bilinguals, and more especially in the combined case of bilingualism in young children, we are probably witnessing an extreme of adaptability. If an understanding of the range and parameters of possible communication strategies and behaviors is central to the study of linguistics, then the description and creation of explanatory models for bilingualism in young children is important indeed for the development of linguistic theory. Here we may observe linguistic manipulation and creativity concentrated, and here models of competence may well be made and tested. In fact, any powerful and general model of linguistic competence must be able to take into account the varieties of bilingualism and developing language use in children, and of these combined, as perhaps a sort of ultimate test. Bending our energies towards fuller understanding of these phenomena may be difficult indeed, a task with so many dimensions as to be a trap for the unwary, but one with the ultimate possibility of high rewards.

In the present case of style-dialect selection, by Hindi-Bhojpuri speaking children in and near the ancient holy city of Banaras in North India, there are complexities which beggar the terminology which this writer had previously learned to use with regard to dialects, styles and related phenomena, and their analysis—as well as the whole question of what we may define as bilingualism in the adult scheme and especially in the schemes of child learners. To reap some degree of understanding out of much initial confusion required two things: considerable time spent thoroughly immersed in the situation, with close attention to what adults and children actually were saying and doing in a wide variety of contexts; and a casting aside of numerous/inadequate preconceptions. The object specifically, then, was 1) to define the operative distinctive features for adults and for children in styles or dialects, and in the contexts for which these were selected, 2) to note what and where were the markers of communicative behavior, and where their parameters, and, most difficult, 3) to come to decisions as to their basic meanings or psychological reality,[1] and 4) to group and categorize these behaviors at a higher level of broad cultural meanings and social functions.

The need to view developing child language as process rather than state seems clear enough. In North India this view of language is further underlined by the factor of rapid linguistic change,

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[1] The question always remains open and theoretically unprovable as to whether psychological reality has really been captured, and is further vexed by the question of whose reality and when, and how many psychological realities may coexist in a social group sharing a culture and language, and how much these need to and do overlap. One can be surer by observing and checking carefully with informants what solutions do not represent psychological reality, or the semantic set, and at least markedly narrow the possibilities.

change which for centuries has added in complex ways to—at any time—an already complex situation. Speech differences traditionally tend to demarcate the enormous variety of crosscut social and religious groupings, and emphasize other distinctions made among them. There is ritual power and bargaining power in language choices. On the one hand language is conceived as having a divine nature and power, some types having more mana than others; on the other hand individuals and groups define and can raise their social status in specific ways by making stylistic changes in their communicative behavior, provided, of course, this is done by small increments and discreetly.

Kali C. Bahl of the University of Chicago makes some pertinent comments along these sociolinguistic lines in a review of M. Jordan-Horstmann's Sadani: A Bhojpuri Dialect Spoken in Chotanagar (1969) in American Anthropologist 73:4:909-10 (August, 1971). It is noted by Bahl that the author fails to mention anywhere that "wholesale language-switching has been going on in this area[2] for quite some time....Several Sadani speaking communities are in the process of switching over to modern Hindi." Further, "language-switching... from Sadani to modern Hindi ...serves to signify sociocultural progress in this area where a particular language or dialect identifies the social status of an individual or a group in relation to other individuals or groups." The important comment is made that, "The problems of correlation between language and dialect grouping along the lines of social stratification can be fruitfully studied in North India." The additional comment might be made that definition of languages and dialects in North India is presently, and understandably, in a somewhat chaotic state.

In this land of overwhelming linguistic diversity and fourteen official state languages, an enormous amount of writing and verbal exposition continues to deal with the subject Hindi, but it must be said that few issues have been settled. Throughout, there is little agreement about how many speakers of Hindi there are, who actually speaks 'true' Hindi, how well and to whom, how much and what sorts of bilingualism and multilingualism exist, what dialects are dominant in what ways, just what the Hindi or Hindustani language consists of, and whether or not scores of dialects and sub-dialects are part of the Hindi language. Out of this of course rises the question as to just what is a dialect and how it is to be operationally defined. It would appear that to some extent each has been empirically and separately defined on the basis of varying criteria by people with varying qualifications to evaluate them. Especially has controversy continued as to the relative status of Hindi and Urdu, for political, communal, religious and regional reasons more than narrowly linguistic ones.

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[2] the Ranchi District of Bihar

Extreme separatists in Banaras and elsewhere argue Hindi and Urdu are two distinct languages, and point for conclusive proof to their different scripts—*devnagrī* for Hindi stemming very closely from Sanskrit, and Persian for Urdu. Ordinary Muslims of course speak Urdu in Banaras; their Hindu neighbors speak Hindi or Bhojpuri, they say; aside from a few differences in formal greetings and prayer formulae, a linguist would be hard put indeed to detect any difference at all when they converse with each other or among themselves, in terms of phonology and grammar. It is true that there are some small differences in kinesic and paralinguistic features, and differences in dress, etc., some of which can be consciously exaggerated or pointed out if need be. There is of course some larger difference in lifestyle: in other words the differences are primarily social rather than strictly verbal, but it is not always easy to see where language fades into other aspects of culture through the communicative devices of such items as gesture and dress.

But it is interesting and informative to compare the Hindi-Urdu stylistic differences given in a standard text with actual usage in everyday speech in this holy city of the Hindus.. By far the greatest number of stylistic lexical alternates listed in the text as Urdu were those in ordinary use among both Muslims and Hindus. My informants, both Hindu adults and children over eight who were able to select and identify dialects or styles by name, contended these were by no means Urdu, but ordinary Hindi.[3] [[3]It should be noted that *esteśan*, *moṭar*, *pensil*, *pen*, *rūl*, *kāpī* (copybook), *saykil*, *reḍiyō*, *leyṭ* and *ṭaym*, connected with the new mechanization and literacy in North India, were regarded and inflected as Hindi too.]

Many of the words listed as Hindi variants were rejected as either not known or considered bookish. Some were commonly contrasted with a lexeme from the Urdu list, but the difference given was that of respect-religious form versus ordinary. A few typical examples of the latter are:

grih	god house	*ghar*	ordinary house
pustak	religious book	*kitāb*	" book
yātrā	pilgrimage	*safar*	trip
śuddh	pure ritually	*sāf*	clean
sāhāytā	divine aid	*madad*	ordinary help
sthān	sacred place (*e.g.*, *tīrth*-*kā* *sthān*)	*jagah*	place
snān	ritually purifying bath (*e.g.*, *ganga snān*)	*nahān*	bath

This question of what is Hindi or Urdu is matched and overlapped by the question of what is Hindi or Bhojpuri, according either to adults or children. Bhojpuri is what is spoken at home, say all informants old enough to be aware of named sorts of speech. Then they add Bhojpuri is the medium of ordinary *bāzār* contacts, contacts with consanguineal kin, with close friends, with women and children. One also prays and sings for the gods in Bhojpuri, alone at one's *pūjā* or in company at a *bhajan* or *ārthī*. Bhojpuri can also be partly grammatically defined by children of eleven in that they can deliberately speak in Bhojpuri and contrast this with Hindi speech, and can give paradigmatic structure of Bhojpuri verbal inflections, etc.

Hindi is said to be that which is spoken at school, in formal business contacts or government offices, in formal ceremonies either public or private, in some contacts with affinal kin; and Hindi is what is written. One uses Hindi if possible to indicate respect given to another, and one raises the respect to be accorded to himself by his proficiency in spoken and written Hindi. Religious books are written in *śuddh* Hindi, a designation given a more formal, Sanskritized, and ritually pure form of the language; religious discourses, dramas, and some ceremonies are conducted in *śuddh* Hindi. Virtually every child over eight is aware of this style, and an increasing number of boys over this age become more or less proficient in its production as well as comprehension.

Nearly every paṇḍit, pūjārī(priest), or vyās (learned commentator on various scriptures), knows śuddh Hindi well and can expound sonorously and dramatically, quoting at times from Sanskrit, for hours. He is unlikely to use śuddh Hindi in his ordinary speech. Very many serious minded men, whether of dviya or twice born varṇa or not, know considerable śuddh Hindi.

This dimension or continuum with regard to respect or ādar in speech is commonly labeled in terms of high, ordinary, and low, or nirādar, though finer distinctions can be made if it is considered necessary in special situations. This is a measure of distinctions both linguistic and social, which transcends and complicates very much of what we are accustomed to think of in terms of dialect or style throughout India. Here these categories are inadequate to describe or explain the interrelationships in a country where some languages may be ritually high and others low, where paradoxically ṭheṭha can mean both pure and unmixed, and the unwritten language of common people. Hardly any aspect of Indian thought or life remains untouched by this contimuum of the ritually pure and worthy of respect, to the ritually defiled and unworthy—persons, groups, objects, ideas and even languages or dialects not remaining constant but rather sliding along the scale according to a multiplicity of factors, and a complex etiquette.

And all this points to the problem of how speech behavior is conceived and defined by the speakers. Factors such as attitudes, vested interests, and cognitive assumptions as to the nature of ritual, social and linguistic context clearly can effect how utterances are produced, received, interpreted and understood. On the basis of these factors plus kinesic and paralinguistic markers we can thus sometimes distinguish a 'dialect' in India. Linguistic distance is generally measured according to social and ritual distance. For example, a child of eight or more, or an adult, would quickly and positively state what dialect or style another person was using or would use, even on the basis of photographs or the mention of certain categories of persons, where both verbal and paralinguistic-kinesic features were largely ruled out. It was a matter of who ought to be speaking what to whom, a matter of established expectations. An informant's more considered decision would be based not necessarily on listening but on further knowledge of such factors as age, sex, dress, residence, *jātī*, education, occupation, plus the speaker's relationship to the person spoken to, his current ritual status, and where the speech act took place: home, neighborhood, *bāzār*, *mandir* (temple), school, office, etc. Even where listening was clearly possible, as in overhearing street conversations, listening for grammatical constructions or lexical items proved secondary to the social-ritual considerations, for which largely visual evidence or non-verbal information stimulated cognitive classification.

This is not to say that either children or adults were unable readily to specify styles through listening alone. They classified easily on the basis of hearing taped samples of speech of individuals unknown to them, though here I could find no way to separate cues derived from the semantic content of the taped speech from purely dialectical or stylistic differences. Before the age of three years children could easily recognize their own taped speech and that of family members, could recognize speech directed to babies by its style, and usually could pick out the *śuddh* Hindi style by labeling the speaker *bābūjī*, a cover term for any sort of holy man, often used by children as well as adults. Between three and five they became proficient in picking out Bhojpuri neighborhood-*bāzār* type conversations, in which they were already participating daily, and could differentiate by respect style markers speech of children and adults to individuals of higher status, outside or within the family. Also they could recognize the simplified style of an adult speaking to a young child in simple short sentences with a restricted set of lexical items and lack of respect forms. Generally they were familiar too with curt or even abusive language style, recognizing it as low, bad *gālī* or *burā-bōlī*. They identified standard Hindi with the radio broadcasts generally, as most of these Bhojpuri learning children had little or no contact with standard Hindi speakers before going to school. School attending children of six or so identified standard Hindi with school and textbooks, though their teachers admitted rather unwillingly that most instruction for the first two years was in Bhojpuri dialect, the teachers speaking Bhojpuri among themselves and at home as well. Some called the speech of the children *khārībōlī* or uncultivated speech, literally bitter.

By eight years school attending children were developing some proficiency within this restricted environment in standard Hindi, though they exhibited a wide range of interest and ability in this. Only a little śuddh Hindi learning takes place in the schools, and boys from this age generally learn more or less formally within the context of religious instruction from an elder family or outside preceptor, or, failing this, may pick up some informally by attendance at religious festivals or other functions where it may be heard and seen. Within one neighborhood of artisans of several jātī-s, boys from about ten to twelve varied widely from little or no ability to produce śuddh Hindi to proficiency at nearly adult level. The variable most closely associated with this seemed to be religious and ritual interests of a traditional sort, and an interest in myth and narrative in general, in other words a semantic context. In many families it is considered improper for a girl to speak anything but Bhojpuri or to attend school, at least beyond the age of nine or ten. Standard Hindi[4] and śuddh Hindi are considered the province of males, especially elders, but this does not prevent girls from being able to recognize, identify and understand these styles, and to respond to them appropriately. Within Bhojpuri it is possible for them to produce all of the main patterns along the respect continuum, and they learn much as the boys do from religious functions. At the same age as boys, girls develop the characteristic narrative style of Hindi,[5] beginning with simple conjoined sentences with narrative intonation patterns at five years, and increasing the length and imbeddedness of the sentences and overall length and semantic complexity and cohesiveness of narrative to early adolescence, when they have mastered production of the adult style. A difference between speech styles of boys and girls is discernable by the age of seven or eight; each recognizes that of the other and will not use it. Here again the differences are largely paralinguistic and kinesic, with a general feature we may call emphasis[6] predominating more in the boys's style, with more variability in intonation patterns, and a wider scope for the same general postures, gestures, etc., plus a greater overall amount of talking allowable. Boys may with impunity use some forms like slang and nicknames which most families will not allow their girls to use. Most families, again, are quite particular that their children in general conform to the standards of good, clean Bhojpuri and not use abusive language. When asked what they most liked to hear, children varied considerably in their answers; in answer to what they disliked most to hear, most replied abusive language. Some few families, it must be said, diverge from this norm.[7]

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[4] Within the last thirty years more girls of educated families are using the standard language of literacy.

[5] This is virtually the same for Bhojpuri as a style, allowing for the grammatical and lexical differences.

There is an important difference, currently receiving considerable attention, between linguistic competence and performance. This underlies much of relevance in bilingualism and language acquisition, of course, and as a concept possesses the virtue of testability with both bilinguals and children. Children's recognition, understanding, and classification of dialect-stylistic differences, as well as their appropriate responses to them within this Hindi-Bhojpuri system can, it is clear, be mapped out in process of development. Working out the best model to explain the children's changing distinctive feature systems and analytic strategies is more difficult, but can be approached through study of their behavioral and linguistic performance, both spontaneous and tested in various ways.

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[6] Semantic emphasis is signalled by several different means in Hindi and Bhojpuri, often conjointly used. These include:
a) vowel lengthening beyond the phonemic V̆~V̄ contrast,
b) use of the emphatic particle /-ī/ or /hī/ which is employed in many ways and places, such as negative /na/ + /hī/ → /nahī̃/ emphatic negative,
c) reduplication of lexemes, phrases, clauses or whole sentences,
d) use of a rhymed doublet of the word requiring emphasis,
e) increasing the voice volume,
f) exaggerating the intonation patterns, and employing other paralinguistic devices, and
g) exaggerating kinesic features such as posture, expression, and gesture. Children firmly possess all these features by age three. Communication of emphasis is closely related to that of respect levels: all its forms enter to some degree in both plus and minus respect communication, the greater use being correlated with greater divergence from neutral or ordinary respect. Further, the particle /jī/ expressly denotes respect, as in ganga-jī, bāū-jī (father), hā̃-jī (yes sir), and jī-nahī̃ (no sir); and pluralization is used to some extent in Hindi and more often than not in Bhojpuri to indicate respect rather than literal plurality.

It is generally agreed among Bhojpuri speakers that Bhojpuri seems most natural and comfortable, some parts of the traditional *śuddh* Hindi next so, the standard Hindi of necessary use third, and last of all the more formal Hindi of upper castes. It is useful perhaps to note that this is the same order in which these are acquired by Bhojpuri speaking children. Children also absorb early a basic set of important knowledge of their culture and how to behave in it; in fact, it is instructive for a researcher seeking important patterns to observe what it is that young children are learning, what they may be imitating and mastering, and what ways they express creativity within their language and culture. In studying children themselves it is also often useful to pinpoint 'mistakes' as defined by their elders' system, in that this can be a guide to developing cognitive patterns and strategies of thought, or competence within the larger system.

Bypassing the earliest stages of vocal production in cooing and babbling, and even that of global, one 'word' utterances, we note that the Bhojpuri learning child at approximately eighteen months develops pivotal utterances of two component words', has already mastered most intonation patterns of Bhojpuri, and has a rudimentary stock of gestures indicating negation, affirmation, and respect to gods and some elders, among other things. He also has some of the emphasis markers in his repertoire, has a stock of verb root imperatives, and generally an impressive list of kinship terms. He has learned some of the important features of family and temple *pūjā*. From one to about three we may say he speaks as he is spoken to in the family generally, in a style devoid of formality or respect markers, except that he is early taught to say *namaste* as well as perform the gesture, and will definitely add the /-*jī*/ honorific particle appropriately to his speech, as in the early morning greeting often extended to me by one two-year-old, *namaṭēē*, *behenjī* (greeting + emphasis, sister + respect). Also he may early indulge in a bit of abuse as rośanlāl at 2,6, threatening his mother's sister's small daughter: *māṛā*, *bāī* (beating, brother?) apparently recognizing that *behen* cannot be used in such a context but *bhāī*, brother, can be used in a slang as well as ordinary context.

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7 Also abuse language is compulsory under certain circumstances; for example, at marriages old women must come to sing insulting songs.

Before three children will be well in command of a stock of minor expletives, such as haṭh, (h)ē, arē̃, and others, used appropriately, for example, to warn off a dog or even another child. They by three have the particle /-vālā/, which may be roughly translated doer, and is neutral referring to things or persons of artisan occupations, but disrespectful for anyone else; and they use it appropriately. In general they will have the system whereby a child or adult addresses non-kin persons respectfully by kinship terms referring to elders of the appropriate generation and sex, often with the /-jī/ particle added. By three and earlier they know to address kin who are older by kinship terms only, since it is disrespectful to call anyone elder by his name. Somewhat later they learn the use of kin terms is elastic also in that one can use a term belonging to the next higher generation from the person addressed in order to convey still more respect in some cases; for example, dādā, literally father's father, for father's elder brother; or cācā, literally father's younger brother, for one's own elder brother.

In Hindi and Bhojpuri respect patterns are not equivalent to politeness formulae: there is no 'please' as such, nor are words for thanks used under any but very exceptional circumstances; expressions such as 'excuse me' are rarely used. Children usually do not learn these at an early age. They do learn to supply all relevant inflectional markers as a sign of respectful speech by the age of four, and that long, involved sentences rather than abbreviated ones are a sign of respect. A few children by three, but nearly all by four appropriately use polite /-iyē/ verbal request forms, such as baiṭhiyē (please sit), caliyē (let's go), and khaiyē (please eat); and use mat, the negative before polite request forms.

But even though isolated and increasing incidents of utterances appropriate to a definite style occur in the speech of children as young as two and three, we have little reason to suppose that they have as yet any abstract concept of two separate stylistic systems. It would be more faithful to the data and to children's capacities to judge novel contexts to suppose they have internalized bits and pieces as yet too scanty to form any coherent broad pattern on an adult style. Furthermore they combine elements of different styles in the same utterance often up to the age of about eight, and often interestingly reduce the respect forms in sentences they choose spontaneously to imitate from older children or adults. For example, Sītā, 6,2 returned to me rather unwillingly my pen, with the /-*ō̃*/ particle related to the sacred syllable *ōm* and thereby respectful, but signifying half consent: *kalamō̃ lē lā, behenjī*; then later followed with *rūlō̃ lē lāta ha*.(The ruler, all right, is being brought.), which her four year old brother echoed without the /-*ō̃*/ as *rūl le lāta ha*. Or Hanumān, 6,5 included the standard Hindi/-*ṭhah*/ marker after his numbers, while his four year old brother immediately afterwards failed to do so; Hanumān: *hamār pā̃c ṭhah fōṭō hō*.(I have five photos.), and Bhāgavandās: *nahī̃, ēk kar lē*. (No, one bring.) Bindesvarī at five was well in command of such respectful utterances as, *caliyē, behenjī-kō dikhaiyē*. and *dēkhaiyē*.(please look.), but sometimes dispensed with them, as when it began to rain and her mother respectfully said, *andar āp-lōg baiṭhiyē*. (You people please be seated inside.), Bindesvarī hurriedly insisted, *ghar-mē̃ calō̃*. (come in the house!)

By about six it appears a rudimentary sort of systematization of styles is taking place, perhaps catalyzed by school and other experiences outside the home, but still children of this age can rarely sustain production in the less familiar dialect or style for over a very few utterances at a time. Here their recognition greatly outstrips their ability to reproduce. Some children of this age can imitate teachers and even holy men in production of standard Hindi and of *śuddh* Hindi, but generally exhibit shyness over doing so in the presence of adults— a different situation from their bold imitation of street vendors at three. By six they could produce a haughty style of formality for semantic effect, as Hanumān's *ah apnē-kō bahut calākh ha*. (To the conceited one himself he is very clever.) They continue with their peers to indulge in abusive speech at times, as Pannalāl, 4,8 to Gītā, 4: *aur maṭṭī khavēgē, nāk capaṭarā*. (And you will eat dirt, flattened nose.)

Systematic instruction, of course, could produce a clear demarcation of styles or, even more clearly, languages by this age. At six, the son of the mahārāja of Banaras could publicly recite from a vast store of memorized Sanskrit *śloka*-s, and knew *śuddh* Hindi. At ten, an apprentice to his *dādā*, a *pūjārī*, could recite Sanskrit and use *śuddh* Hindi easily, while the eleven year old son of a clerk and particularly pious man followed his father in conducting his own daily home pūjā in Sanskrit and śuddh Hindi, separating these clearly from the Bhojpuri he spoke at home ordinarily, and the standard Hindi he spoke at school. Another not unusual eleven year old boy could easily recite myths with almost a full command of śuddh Hindi style in all features, keep his school Hindi separate from this for the most part, and keep his home Bhojpuri entirely separate.

It would appear that, by ten or eleven certainly, these children exposed to different styles in different contexts have almost entirely separated them according to different sets of distinctive features into integral patterns, and that they are thus able to do what many adults within their same social groups have not completed. There seems to be considerable elasticity in the system itself, which allows many to overlap their styles, yet encourages some to separate them more fully. And the very closeness of these styles on a respect-level continuum makes their study interesting, and their development in children revealing, as it shows the types of confusions and the kinds of separations made during the process of learning, as well as sometimes indicating criteria and strategies used for developing systematizations.

CONFIGURATION OF STYLE-DIALECTS IN BANARAS, INDIA

A Continuum Based on Respect Forms

Bhojpuri	standard Hindi	*śuddh* Hindi
3 ordinary Bhojpuri with sets of neutral markers & set of respect markers	5 formal polite style highly inflected, Sanskritized, a formal literature written, highest respect markers	6 extreme respect for religious exposition, public speeches, highly Sanskritized and inflected, the highest style of writing, three highest sets of respect markers
2 rude style or *khārībōlī* without respect markers	4 ordinary style written, three sets of respect markers as in Bhojpuri, but more inflection	
1 abuse style or *gālī*, *burābōlī*, defined as *khārībōlī* with its own paralinguistic and kinesic features, and lexicon additions		

Sample Respect Forms in Imperative-Requests, for the above styles

1 verb root only *jā* (go!) disrespectful

2 " " " *jā* (go!) " , also simplified for babies

3 " " plus -*ō* (go.) lacking respect
" " " -*nā* (go.) neutral
" " " -*ivē*(please go.) respectful

4 same as 3,
5 also same as 3, and
verb root plus-*ivēgā* (please have the pleasure of going.) extreme respect

6 verb root plus -*nā* (go.) neutral
" " " -*ivē*(please go.) respectful
" " " -*ivēgā* (please have the pleasure of going.) " "

Bhojpuri arose as a dialect indigenous to southeastern Uttar Pradesh and southwestern Bihar, centered along the Ganga or Ganges River, as an unwritten Indo-Aryan dialect, presumably from the medieval Prakrits. It exhibits considerable variation from west to east and, on its edges, blends in with other dialects.

Standard Hindi was created artificially in part, from dialects closer to Delhi in Mogul and British times as a useful *lingua franca* across broad stretches of North India, and has always been identified with the government and with literate speakers. It has tended also to be identified with outsiders; though this aspect is diminishing,as Hindi served for a unifying force in India's struggle for freedom and as such was consciously developed. A Hindi literature appeared in this century, and Hindi is definitely spreading through North India at several levels: as the main film medium, the government radio medium over large areas, a medium of instruction in schools, a government medium in several states, as *bāzār* and commercial *lingua franca*, and other ways. Furthermore it has become a prestige language associated with literacy and important posts, and its use is a mark of upward mobility. It is gaining as a second language or dialect for many speakers.

Śuddh Hindi is a purely literary and formal expository style used traditionally in religious contexts and increasingly in political expository style in some parties where the dress of religious sanction is useful.and even necessary. Characterized by the incorporation of many words and roots from Sanskrit it was developed especially in and around Banaras as a self-conscious elite style in this holy city of *paṇḍits* and publishers. In *śuddh* Hindi, and indeed in other speech to some extent, the verbal symbols have something of the quality of signs as well. The sanctified syllables and words are directly associated with sanctified being and action; the sacred syllable *ōm* is more than an invocation in the Western sense: it is an automatic evocation of transcendence. The idea is strong that form implies meaning as part of the same basic unity, so Sanskritic scholars would not agree with the assumption in Western linguistics of a necessary dichotomy between sound and meaning in human speech. It is no accident therefore, that people under this influence tend to treat language as an important thing itself to be treated respectfully, whether they are speakers of *śuddh* Hindi, standard Hindi, or Bhojpuri.

Notes on Some Outstanding Features of Comparative *śuddh* Hindi, Standard Hindi and Bhojpuri structure

1 There are some phonemic differences between *śuddh* Hindi, standard Hindi and Bhojpuri; the most noteworthy for mention here perhaps is the general and progressive tendency to simplify consonant clusters from $C_1C_2(C_3) \rightarrow C_1(C_{2,3})$ or $\rightarrow C_1əC_2$, etc. Also some phoneme sets such as spirants and nasals have a tendency to collapse somewhat, from three to two, and five to three to two respectively, while the vowel system follows a simpler pattern in Bhojpuri as well. (We find this same tendency towards simplification of these items redoubled in young children, not only in this area, but in all the languages thus far studied for acquisition patterns. Caution and further research should, of course, precede any interpretation of this.)

2 A few outstanding grammatical divergences along this same scale are:

a) increasing use of pluralization from *śuddh* Hindi to Bhojpuri for a respect marker over literal enumeration—plurality becoming more of a semantic marker in Bhojpuri, where it rarely is used to denote pluralization; *e.g.*, Bhāgavandās, age four years, one month, offering a sweet to an old neighbor woman: *lē*, *dādiyā*, *lē*. 'Take, father's mother +plural marker, take.' It should be noted that this tendency is present even in *śuddh* Hindi, for example, in the substitution of plural for singular pronouns and verbal inflections to indicate respect. All similar tendencies of *śuddh* Hindi are present and increased in standard Hindi; this process continues with Bhojpuri.

b) *Śuddh* Hindi most closely parallels the enormous inflectional complexity of Sanskrit, for example, in large multidimensional paradigms for nouns, verbs, and adjectives along such axes as number, 'gender', direct-oblique constructions, and several specifically on verbs with regard to person, time, causality, transitivity, aspect, etc. In standard spoken Hindi we find very similar verb patterns, but less complexity and less regularity in such items as direct-oblique, singular-plural, masculine-feminine distinctions. In Bhojpuri a few verb constructions are absent and others changed in their phonological realization; not only number markers but gender sometimes shows more affiliation with respect.

c) Correspondingly, *śuddh* Hindi depends less upon word order than inflectional markers and agreements, is characterized by intricately imbedded sentences dependent upon this inflection and by parallel grammatical constructions of phrases, clauses, etc. Standard spoken Hindi possesses a more closely defined word order and less range of variability in imbedding and other features of syntax. Again in Bhojpuri this process is carried somewhat further, though the parallel structures continue in profusion.

d) Some intonation patterns of śuddh Hindi appear to be derived from ritual Sanskrit chanting, or at least to be related to it; narrative intonation patterns conform to the intricate syntactic structure. In standard Hindi and in Bhojpuri these are correspondingly modified to fit the syntax, but features of rising and falling pitch, length, juncture, etc. are very similar in narrative patterns.

3 Paralinguistic and kinesic features are, in this system at least, of far greater overall importance than they are usually accorded in narrowly defined linguistic terms, in conveying often the bulk of the semantic content of a communication, and being certainly capable of definition, study, and analysis. One speaking śuddh Hindi sits erect or stands, head back and eyes directed somewhat down to listeners; arm and hand gestures are broad and relatively slow; he does not smile, but his expressions are intended to convey power and dignity; he gazes down on listeners with brow drawn down, chin and mouth somewhat forward. He speaks relatively loudly, and he is the one to initiate speech or conversation if different styles are being used in one group. His intonation patterns are exaggerated beyond ordinary Hindi. If śuddh Hindi is used in private reading or pūjā these features are less marked. In standard Hindi use they are again less marked, though gestures tend to be more rapid, along with speech. With standard Hindi and Bhojpuri there is considerable variation in paralinguistic, kinesic and proxemic features, depending upon the respect relationship between the participants in communication. To give respect one makes namaste or, more respectful, namaskār, in a slight bow from the waist with palms together before the chest or face, depending upon the degree of respect to be given. A high degree of respect is conveyed by praṇām, prostration on knees and face. Both may be given the gods, to certain kin, to certain others in a complex system. In giving respect one also keeps silence, or speaks when spoken to, maintaining an erect posture, a solemn coun-

tenance, and correct distance, and speaks clearly but not loudly. To a guest one shows respect by offering water and ritually pure foods or pān (betel). In neutral respect contexts speech tends to be somewhat louder, and a complex array of facial expressions and gestures, postures, etc. comes into play, formalized as bhāva and mudra in the dance systems of India. No learner can speak the language without learning and using these; children are masters of nearly all patterns before the age of three years. There are also several features of these sorts which indicate disrespect: posture, gesture, facial expression all exaggerated, and speech loud and rapid, without the customary pauses for replies found throughout polite styles. This may also be learned very early, but in nearly all cases is soon eliminated in the presence of any elders. These features of language and style structure are, of course, only a minute selection from what could well occupy volumes, and are intended only hopefully to be a representative enough sampling to convey some appreciation of what dialectical and stylistic items and differences children within the system must learn; and learn they do, mastering their home dialect-style before five, and learning more or less of all which are pertinent within the lifestyle of their group by about the age of eleven.

This study of style-dialect learning was part of a larger thirty-one months project researching the acquisition of linguistic, cognitive and behavioral patterns in young children from two widely separated regions of India. Those contributing to this paper live in and near Banaras (or Varanasi), Uttar Pradesh; the others being Telugu learners of southern Andhra Pradesh. Most are children of handloom silk weavers of fairly low but clean caste, and are members of agnatic joint families. Formal education of mothers and other elder female kin ranged from zero to two years; that of fathers and elder male kin from zero to five years. Most families today try to send their children to local government schools for more years of formal education than they had themselves, though this is often difficult. Pressures are strong for the children to work at home by nine or ten for several reasons. Children are exposed to various linguistic styles and even languages beyond those of the family in the larger neighborhood, school, temples and religious functions, and occasionally by being taken to another community to visit kin or a holy place.

LANGUAGE STRATEGIES OF THE BILINGUAL-FAMILY

by

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INTRODUCTION

Every year there are thousands of bilingual marriages between persons speaking different languages. Although statistics are not usually kept of such marriages, there are indications that they may be on the increase. For example, Yugoslavia, one of the few countries which maintain such interlingual statistics, noted an increase of about 30% in such marriages within the decade 1950 - 1960.[1]

Unlike the unilingual, or common variety, multilingual marriages contain an additional dimension in the patterns of interpersonal relations which such unions involve; this is seen in the choice of medium of communication, not only by the couple, but also by their children and, in the case of the enlarged family, of relatives as well - in other words, in the choice of the working language or languages of the group.

To begin with, there is a choice of three different possibilities. Either everyone in the group uses the language of the husband, everyone uses the language of the wife, or both languages are used according to some overt or implicit pattern. The implementation of the pattern may be unconscious or conscious, unintentional or intentional. If it is unconscious and unintentional - a policy of *laisses-faire*, as it were - the dominant language is likely to prevail in the end, and assure the unilingualism of the succeeding generations.

On the other hand, if the way the languages are used is based on a firm decision to maintain the different languages - a policy of planned repartition, the successful creation of bilingual families, and bilingual communities, will depend on the wisdom and feasibility of the policy.

A policy of planned repartition is composed of one or a number of language strategies. For purposes of analysis, these can be divided into two categories - strategies of dichotomy or fixed alternatives, and strategies of alternation involving the practice of spontaneous switching from one language to the other.

1. *DICHOTOMY*

Strategies of dichotomy can be divided into those of person, place, time, topic and activity. Let us consider each of these in turn and see how they can be and have been applied in the practice of a number of bilingual families, including my own.

1.1. *Strategies of Person*

We are all familiar with the Grammont Formula: *une personne; une langue* (one person; one language), which began to appear in the literature on bilingualism at the turn of the century.[11] Grammont theorized that the separation of the two languages from infancy would help the child learn two languages without either additional effort or confusion. It is the formula used in most reported experiments on family bilingualism. One of the first such experiments was that of Ronjat which began in 1909. The Ronjats made it clear to their son Louis, born the previous year in Vienna, that if he wanted his spoon, he said *cuillère* to his father or *Löffel* to his German speaking mother or her relatives. Ronjat thought he could thus place both languages on an equal footing. His report of the first five years, however, shows that this is not exactly what happened in practice.[32]

During the first few months, German predominated, and after two years Louis used German words in French sentences. After the second speech year, however, French began to dominate, and by the fourth year, French words appeared in German sentences. Following this there were periodic switches in language dominance, apparently caused by changes in the environment.[32]

Although most of Ronjat's details are on the first three years, there are some data on the fourth and fifth years as well. A decade after the publication of his monograph, Ronjat wrote to Michael West who was about to embark on a study of school bilingualism in Bengal. Ronjat reported that his son had done well in the French primary and secondary schools which he attended, resulting in a dominant French academic and technical vocabulary but a preference for German in literature.[46] Ronjat summarizes his results as follows: 1. Continual use of two languages from infancy. 2. Parallel acquisition of two phonological systems. 3. Acquisition of two languages comparable in sequence of mastery and achievement to that of the average monolingual.

We had to wait almost another quarter century, however, before getting a comparable record of results of the application of the Grammont Formula. This one, however, was much more detailed and extensively informative. I refer, of course, to the four-volume study of Werner Leopold.[18] Born in London of German parentage, Leopold received most of his education in Germany, where his parents had settled when he was three years of age. In his twenties, he went abroad and after a period in Latin America, settled in the United States where he married a third-generation German American. After the birth of their first daughter Hildegard, in Milwaukee in 1930, Leopold decided to speak only German to her, while his wife limited herself to English. But more important, he also decided to keep a detailed record of the results, starting with the end of the second month of life, recording all utterances in phonetic notation.

The results show a striking similarity with those achieved by the Ronjats. Although the child achieved mastery of both languages, these were never equally strong. First the mother's language prevailed and later on the father's. There were periodic shifts in dominance as the language contexts changed, as for example, during a trip to Germany when the child spoke only German. Returning to the United States, she spoke more and more English, until that language became stabilized as her dominant one. Like Louis Ronjat's, Hildegard's learning process was not adversely affected by her childhood bilingualism. The achievement test she took on entering the fifth grade revealed her English vocabulary as being at about the seventh grade level.

My own personal childhood experience with a number of languages seems to confirm the findings of Ronjat and Leopold, as to the efficacy of the Grammont Formula. I should, however, add something on these elusive, emotive effects, which cannot easily be observed from the outside.

I shall first deal with the strategies of the family into which I was born and later with those of the family which I founded.

The strategies to which I was subjected in early childhood were as follows: three languages both inside and outside my home, one in the kindergarten and two in the neighborhood, functioning as two active and four passive languages, making a total of six.

As for the person-language relationship, it was a bit more complex than those of the Ronjats and Leopolds.

I remember that I always associated German with my grandfather since he usually spoke German - although he knew several other languages. My father was bilingual (Hungarian - German) but we always spoke German together. Yet - there was great difference between the German I spoke to my grandfather and that I spoke to my father: with my grandfather I felt at ease when speaking German; but not quite so with my father; perhaps because my father and mother spoke Hungarian among themselves and *that* language seemed infinitely more endearing to me than German. However, as a child, I reconciled myself to the fact that Hungarian was *their* language and that *I* was expected to speak German. In a way I felt like an outsider and at times I was envious of my mother who seemed to be getting a greater share of my father's love. Up to the age of four nobody in the family knew that I understood Hungarian, and even after it became known, I continued to speak German to my father until my university years. Only then did my father and I speak Hungarian with each other, and this brought us closer together giving me a feeling of warmth and tenderness which was always lacking in our German relationship. He then reserved German for times when he scolded me or when we discussed an academic subject.

My mother spoke only German to me, up to the age of nine when I changed from German schooling to Serbian; she then worked long hours with me to teach me Serbian. At the age of high school I alternated languages. I spoke mainly German to my mother except in all matters concerning school life, when I used Serbian. After high school I spoke to my mother almost exclusively in Serbian and she responded in either German or Serbian. As for my numerous uncles and aunts, they represented three language divisions: German, Hungarian and Serbian. Most of them were one to one relationships, but I remember a multilingual uncle to whom I was never quite sure in what language to speak. We always had to wait for a situation before warming up and deciding upon which language we would choose.

1.2. *Strategies of Place*

Another type of dichotomy is the strategy of allocating languages to places. This is a common practice, often imposed by necessity. It happens every year in the families of thousands of immigrants and migrant workers, which have always been present in American communities. Since World War II migrants have come to constitute one of the most important social phenomena in Northern Europe, with three million in France alone, and almost as many in Germany.

As a rule, a family moving to an area where another language is spoken will first continue to use its own language exclusively and gradually adopt the area language while maintaining the home language. The children develop a home language/community language dichotomy in their psycholinguistic associations. Quite often, however, the incursions of the community into the home, in the form of neighbors, visitors, school friends, and later, boyfriends, girl-friends and eventually in-laws, errode the status of the home language, especially after the children have abandoned it as a medium of communication between themselves - an area where the community language is bound to dominate.

Although the number of reports on the use of repartition by place is limited, this type of language strategy has been consciously used as a policy for the creation and maintainance of family bilingualism. One of the first studies was that of Pavlovitch.[29] The Serbian-speaking Pavlovitch family settled in Paris after the First World War and decided to maintain Serbian as the home language, while using French as their external or community language. Their son Dušan, therefore, learned his French outside the home. Since the Pavlovitch record covers only the first two years, it is not surprising that Dušan seems to know much more Serbian than he does French. Nevertheless Pavlovitch comes to some of the same conclusions as does Ronjat.

More than a decade later we have another report, this time from Geneva. In the 1930s, Elemér and Adèle Kenyeres arrived in Geneva with daughter Eva just turning seven. In Geneva they insisted on maintaining their native Hungarian as the home language, but sent their daughter to a local school where all the teaching was understandably done in French. The Kenyeres later published a study of what they observed.[16] After six months, French began to be used in some domains as the child's dominant language. There was little language mixture, and no confusion. The new language was acquired faster than had been the mother tongue, but in a somewhat different way, since it involved a certain amount of conscious effort.

A more recently recorded case is that of the Penfield family. The English-speaking Penfields decided to make German the language of the nursery and they hired a German governess for their two younger children (aged 6 months and 18 months). To the best of their ability they themselves used German when they entered the nursery, so that the children heard only German when there. As the children turned three and four, respectively, another dichotomy of place was imposed, when they were placed in a French nursery school. At school age they began and continued their studies in English without any harmful effects. A similar program was laid out for the two older children starting with the ages of eight and nine.[30]

Penfield concludes that there were no effects of retardation or confusion of languages. The language switch according to place became a conditioned reflex for the children entering the nursery or the school room. In retrospect Penfield believes that it would have been better to continue French until the age of seven, since the seven-year-old "hangs on" to things.

If a change of place can be instrumental in promoting the learning of another language, it can also be a factor in the forgetting of one. This is illustrated in a study made of the forgetting of her Spanish mother-tongue and the learning of French by a six-year-old refugee from Madrid during the Spanish Civil War. The girl was adopted by a Belgian family living in Brussels; within about three months she had forgotten her first language (Spanish) and replaced it by her second (French). Two years later she started learning Spanish again, but this time more formally.[39]

It seems that if children learn languages quickly they can just as quickly forget them. Reasons for forgetting may vary, but by and large, changes of place seem to be among the most common causes. Children of diplomatic personnel, foreign business and military representatives and the like are exposed to different languages over sufficiently long periods to master them.

In some cases, the children may be emotionally disturbed by having suddenly to abandon a language to which they had become accustomed. A friend of mine in the German diplomatic corps, has written that his ten-year old son suffered a near depression as a result of having to switch suddenly from a German medium to a French medium school. Although he finally mastered the language, he did not like it. Two years later, when his father was posted to Ireland and he had to switch to an English-medium school, he developed a liking for French and a distaste for English. At the age of 13, speaking the three languages with almost equal ease, he preferred French to both his native German and his fluent English.

At an earlier age, however, children, even without conditioning seem to associate the right place with the right language, with a stubborness which often confounds their parents. The German father of a seven-year old bilingual American whose mother is English-speaking, writes that his daughter refuses to speak a word of English when she lands in Germany for the summer vacation and just as consistently refuses to utter a word of German outside the family when she returns to the United States.

In my own case, the language-person dichotomy already described operated in a larger language-place repartition. Until the age of four I was exposed, as I have already mentioned, to the same three languages inside and outside the home, namely to German, Hungarian and Serbian. At the age of four and a half I was placed in a French kindergarten; and by the age of five, three more languages had been added to my repertoire, namely, French, Russian and Rumanian. Yet, before the age of four my only active language had been German. Hungarian was my secret language, that is, I had a complete comprehension of it, but never admitted it. Serbian too was a passive language which I understood fairly well, but did not speak until the age of nine. French was my kindergarten language and Russian became my post-kindergarten language, as a result of my association with the family of my kindergarten teacher who was a native Russian, and Rumanian was spoken by a great number of my father's patients, whom I heard chatting in the waiting room. Of these additional three languages only French was active, while Russian remained latent until a later age; as for Rumanian, it never became active and I never had a desire to speak it.

1.3. *Time, Topic and Activity*

Times, topics and activities have also been allocated to the use of languages of a bilingual family, but with varying degrees of success.

In studying the strategies of time, a distinction has to be made between the sequences in which the different languages appear on the scene (staging), and the repartition of language uses among recurring time units.

The staging of languages in the life of the child may constitute the main strategy of the bilingual family. When parents want to make doubly sure that one of the family languages is well grounded, they may arrange for it to become the child's first language and maintain it to the point of fluency before the other language is brought in. This has been the practice of some educated immigrant families living in an area where the family language is not used. Some specialists of the psychology of language learning have suggested that it may be preferable to present both languages concurrently.[43]

It is true that time divisions are the practice in certain bilingual schools, where the working languages may change regularly from morning to afternoon, from week to week, or month to month. In a federal military college in Quebec, for example, French and English have been used as working languages on alternate days. This approach has also been studied experimentally in schools in the Philippines.[40]

In the bilingual family, however, such formalization into time units is difficult in practice. I have observed a number of families who have tried it, and should like to explain what happened. In one family, where the mother was French, the father English, and the common language as well as that of the school, French, the schedule for the two children aged seven and nine was the following: on weekdays the whole family would speak the language of the school (French), whereas over the weekend the family would switch to the father's language (English). The result of this strategy was that the weekend language inevitably got overshadowed by the workday language - possibly because of the artificial set-up of the situation, the habit forming force of the five workdays, and also perhaps because of the domineering personality of the mother who spoke the workday language.

Another family, where the mother was German, the father French, the common language, as well as the school language, French, operated on a daily alternation schedule, the result of which was the same as above, namely, that German was soon overshadowed by French, due again perhaps to the artificiality of the situation and the fact that the mother herself was not categorical enough to insist on the usage of German.

Why do time dichotomies seem to be unworkable as a strategy in so many bilingual families? It is perhaps because, unlike persons and places, the switch to another language must be inner directed, as it were. In the case of time units, we do not have the same sort of conditioned reflex whose unconscious associations impose the appropriate language on the speaker. With time units, the speaker, with his eye on the clock, must make a conscious decision. Most families do not organize their time in such a way as to permit the use of time boundaries.

Another strategy of language repartition is by topic, whereby certain things must always be discussed in one language and other things in the other language. Sometimes, a family will use one of its languages only for giving orders, making formal pronouncements, or reproaches. As a matter of fact, I remember that it was when such topics came up - unpleasant topics involving reprimands - that my father would switch to German. Other families reserve one of their languages for such activities as praying, or learning, or singing, or telephoning, or for taking part in games and sports.

It is not very often, however, that activities or topics are chosen *a priori* as a basis of language strategies. The switching practice is more often conditioned by other factors such as the fact that a topic or activity has been associated with groups outside the home.

Of all these strategies of dichotomy it would seem that those of person are the most lasting and effective. And there is some experimental evidence - albeit with adults - that would seem to support the effectiveness of associating languages with persons.[12]

2. *ALTERNATION*

In opposition to the division of language use within the bilingual family along the lines of person, place, time, topic and activity is the alternative use of both languages. This may be either conditioned or free.

Conditioned alternation results from the necessity of switching to the other language as a result of some compelling motive. It may have to do with the occupation of the husband, whereby his work and even his training was in the other language. So that he will continually be tempted to switch back and forth to this language when talking about his work. Or it may be emotional stress that would lead a grandmother to switch back and forth between her stronger and weaker language as the flow of thought rushes more and more quickly through her mind. Or it may be a heavily associated word or a homophone that would trigger a switch to the other language.[2]

Whatever the motive, the result for the bilingual child is that both his parents may use both languages indifferently when speaking to him. And the child may also use both languages indifferently when speaking to bilingual parents or relatives. It is sometimes claimed that unplanned switching may confuse the child and lead to language mixture and emotional disturbance.[8] It has even been suggested that exposure to two languages simultaneously may lead to mental blockage and stuttering.[36]

There is surely not enough experimental evidence or a sufficient accumulation of case studies to come to any hard and fast rule, since the conclusions drawn from the few cases studied may well be the result of *post hoc ergo propter hoc* reasoning. Anyone who has observed the language behavior of bilingual families and the language and emotional behavior of bilingual children must conclude that at least in some cases free alternation of languages does not lead to disaster.

3. *THE USE OF MULTIPLE STRATEGIES*

With all these possible strategies in mind, our own family had some difficult decisions to make when the time came to decide what languages we wanted our children to know. It may be of some interest if I were to recount how we used these strategies and what results we obtained.

Although it may seem ungracious to use my own family as an example, it is what I know best and at first hand. We started by reasoning that, living on a continent which is overwhelmingly dominated by English, the maintenance of this language would give no trouble. English, therefore, was given the lowest maintenance priority in our staging strategy. Secondly, living in a medium-sized city which is 98% French-speaking, there should be no lack of opportunity to maintain the use of the French language - especially if it were made the school and the neighborhood language. The third language, however, posed a problem. It first had to be chosen from such possible candidates as Russian, Serbian, Hungarian, Italian, and German. But its choice would depend on the strategy to be used for its maintenance. If it were a strategy of place, the choice was more limited than if it were to be a strategy of person, for the simple reason that one person might be sufficient, but in a place strategy several persons would be involved. Opting for the latter and taking into account the likelihood of eventual use, we elected German as the home language. And because of the great difficulty of maintaining the language outside the home in a completely non-German area, it was given top priority in time, place and person. The strategy was to make German the first and only language learned from infancy. At the age of four the inevitable home-street dichotomy would bring in another language, in this case French. This dichotomy was enlarged to include everything outside the home, once the children began attending French-language schools. Finally, the third language was introduced about the age of nine by using a person strategy, bringing in a father-mother dichotomy, thus introducing English into the home.

Under the headings of person, place and time, let me now take this opportunity to comment on how these different strategies worked in practice. At the beginning when German was the only language spoken in the family, there was no problem. It is only when we had decided that the time had come for the father to use his own language, namely English, to serve as a model and a stimulus that we ran into difficulties. Both children categorically refused to speak English to their father, with the logical objection "Why should we speak English to him, when he understands German?"

Seeing that there was no motivation and that the situation was ridiculously artificial, there was no hope for them to ever learn their father's language from their father. This problem was later solved by interlarding a new place dichotomy in the learning sequence. But let me first explain our earliest strategy of place.

Changes of place were significant enough to cause a noticeable difference in the children's command of German. Around the age of two, when she began to speak, to the age of five, the elder spent three consecutive summers in Northern Germany, by the Baltic. She has never returned; but at the age of fourteen, she still speaks German essentially with the accent of that area. The younger, who spent two summers in the area, one as an infant and the other at the age of three, did not preserve the accent of the area, and developed and preserved a pronunciation of German which is closer to that of her parents, but with slight overtones of French influence in rhythm and intonation. (e.g. *Ich 'hab das 'nicht ge'sagt.*) She became less attached to German than did her sister for whom it had strong emotional ties.

Other changes in place, resulted in the strengthening of their English. These began with a term in Santa Monica, California in which the children spent most of the time absorbing the blandishments of ten television chanels to a point where they would recite most of the oft-repeated commercials - including the singing ones. Being newcomers in a rather closed residential community and having not sufficient occasions to make friends, most of their English came from the air waves - and it turned out to be considerable. It stood them in good stead when four years later they spent a term in Florida and were able to continue their schooling in English with children their own age. Here they spoke only English to their friends, German to their family, and French among themselves, thus maintaining the three languages.

The term immediately preceding had been spent in Germany where they were also able to follow classes with companions of their own age. This was a school in which half the subjects were taught in English, thus serving as a preparation for the switch to the all-English medium in the United States.

As for the staging of the languages, German was used exclusively until kindergarten, when the children were exposed to French in preparation for their schooling, which the elder began at the age of four and a half - in retrospect I think, unwisely - and the younger, at the normal age of six. The younger spent two years in a French kindergarten and always felt much more part of the milieu and more at home with her friends.

The resulting language distribution pattern in their verbal behavior, as they entered their teens is as follows: 1. German both ways to mother and grandmother. 2. French exclusively among themselves and outside the home. 3. English outside the borders of Quebec and increasingly as their father language. In pre-school years as already noted, they used only German with their father, since that was the language of the home. In early school years (5-7) they interlarded their German with stretches of French only when speaking to their father, and in later school years (8-14), especially after having spent a term in an all-English school, they used more and more English with him. The strategy was to convert the father language to English, preserve German as the mother-tongue, and French as the children's own language.

As in all reported cases from bilingual families, it was not surprising to find that one language was interfering with the other two. But because of the continual social control and feed-back, they were ephemeral by nature, and never led to language mixture. In other words they had no effect on the codes, remaining as they did as accidents of discourse. Interference began to appear about the time the children began attending French schools. It was first noticed in the interlarding of French school vocabulary, which soon became more available than the German counterpart. (e.g. *Ich weiss das schon par coeur.*) Then came the use of some French words in German, with added German morphology (e.g. *inventiert, exagériert, maîtrisieren*). Many amusing examples could be given if space permitted. At all events they were easily corrected and seldom appeared in their speech to unilinguals in German or English, for the simple reason that the unilinguals would not understand. The greatest force in eliminating interference was that of conformity with the speech of their playmates.

How the children arrived at a systematization of their three languages is still something of a mystery, although a few theorists of the subject have suggested tantalizing explanations.[15] An even more difficult problem is to explain the processes of cognition; few explanations of the cognitive basis of language learning take the bilingual child into account.[23]

CONCLUSION

From the above study of the language strategies used by us and other bilingual families to transmit our languages to our children, we might hazard the following very tentative conclusions:

1. If the situation is a natural one, it is likely to motivate the child to use the language of the situation.

2. If the parents do not interfere or force the child to speak a given language in a given situation, the overall linguistic development of the child is likely to be normal.

3. If the parents inconspicuously lead the child into natural contexts in which the probability of language switch is high, the full language learning potential of the situation will have its effect upon the children. It would seem unwise, except in later life,

to let the child know that he is involved in a process of bilingualization.

In retrospect, I think that one can safely assume that the study of family bilingualization can also contribute to the psychology of language learning. Observation of the degrees of success or failure of different language strategies of bilingual families throw light upon the question of how man acquires the ability to speak. Is the learning of speech the building up of a skill step by step, as one would learn to play the piano, for example? Or is it like the blossoming of a plant which, in its own time and under the right conditions,brings forth the flower and the fruit? There seems to be growing evidence that the latter is the case, since man seems to be the only being with an inborn capacity to speak. The success of bilingual families argues that this general capacity can take a great variety of specific forms, and that, if there is an imprinted capacity to speak, it is not limited to one language. Everything that the infant needs in order to master any human language, or a number of them, seems to be already imbedded in his nervous system. This must include a capacity to generate an infinite number of different utterances from a finite - indeed a small number of units and patterns. It is also worth noting that the growth of language in the child goes hand in hand with the growth of its physical and mental skills. Like the plant, the child develops as a whole. And just as the growth of a plant can be guided in one or several directions, so can the innate abilities of the child be developed in a climate favorable to the learning of different skills including the mastery of more than one language. If the strategy is the right one, and it is applied with concern for the feelings and interests of the child, it could enable the bilingual family to produce bilingual children.

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Question Generation by First Graders: A Heuristic Model

Virginia Streiff

While today's most eminent educational leaders and critics are insisting that the facts must be viewed at best as tenuous, our technology is developing even more means for storing and retrieving the daily influx of knowledge. One's respect for factual knowledge grow's even healthier with the recognition that Benjamin S. Bloom and his colleagues determined nine categories of factual knowledge, which explicate three inclusive categories: knowledge of specifics, knowledge of ways and means of dealing with specifics, and knowledge of universals and abstractions. (Bloom, et al, 1956) The nine subcategories of these three suggest even further classes, and a self-respecting computer might consider this a serious understatement.

Considering such an array of facts and attention to them, it is little wonder that in classroom practice the term "comprehension" has come to be equated with recognizing and recalling facts, as in reading comprehension, or as in testing for listening comprehension. (Guszak, 1967; Sanders, 1966)

As both the research and the editorializing in inquiry education are urging, for responsible scholars and citizens, getting the facts is just the beginning, and comprehension of them is the next step.

The notion that message-receiving is an active endeavor calling for many more processes beyond getting and recalling the facts is not new. But classroom practices which foster these processes are few and far between, as amply documented in the research on listening. (Duker, 1966) While not all messagesending is intended for the listening mode alone, much of it in the classroom is. One study estimates that elementary school children spend approximately sixty percent of their classroom day engaged in this activity, if we can consider thinking at the recognition-recall level as active engagement. (Wilt, 1966) It was this kind of thinking that another study revealed was the main focus of teachers' questions to students about reading material in twelve randomly selected classrooms in Texas, to the extent that about seventy percent of the teacher's questions required only that the children recall explicit facts from the material they had read. This relegated other thinking processes (e.g. interpretation, analysis, substantiated evaluation, etc.) to the remaining thirty percent of the questions. (Guszak, 1967) This kind of classroom message to children is probably responsible for the facts behind the lament of one graduate student who recently wrote, " Too many students will do anything to avoid the real essence of education which takes place only when the student reacts to material after being exposed to it and personally thinking about it." (Lister, 1971)

The program to be described in this paper grew out of a concern with such problems in message-receiving, particularly as they are faced by young learners of English as a second language now in their classrooms, and as they will be faced in whatever media transmit the messages in their future.

The objective of this paper is to describe the design and practical application of the program called "Listening", which was developed to help these second language learners gain some strategies for comprehension in their new language. The working hypothesis in the development of the Listening program is that these children will be better equipped as learners if they first receive systematic instruction in learning to use their new language as a medium for learning, learning used here as a paraphrase for thinking, particularly for thinking beyond the recognition and recall level to more abstract levels of cognition.

In the course of implementing this program with thirteen classrooms of first grade children whose native language was either Navajo or Spanish, it became apparent that the heuristic tools the program provided the children in their second language might also be beneficial for improving their comprehension skills in their native language. This is one area in which experimentation might be fruitful for the multi-lingual education of young children.

In terms of its general and specific objectives, the Listening program assumes the validity of Covington's point:

> ....before the student can derive maximum benefits from a strong process-oriented approach to education, it will be necessary to develop a curriculum model which has as one of its fundamental objectives the fostering of intellectual processes in their own right, a goal which must be fully integrated and coordinated with other more traditional objectives such as mastery of content and assimilation of cultural values. (Covington, 1970)

The long-range goal in this program is the learner's active involvement in thinking about the facts he listens to, in applying language and thinking processes which help him comprehend and retain the salient features of a message which often exceed the explicit facts, and then thinking more about them.

The thinking processes fostered in this program are those described by Bloom in A Taxonomy of Educational Objectives, Handbook 1: The Cognitive Domain. (Bloom, et al, 1956) Beyond the knowledge level which emphasizes the processes of recognizing and recalling, they are comprehending, applying, analyzing, synthesizing, and evaluating. The stages of the Listening program developed in daily lesson plans to date focus specifically on the sequence of comprehension processes described by Bloom and his associates, and extrapolated for the program as:

- i. Paraphrasing
    - a. rephrasing the information from one symbolic form to another. The student can 'translate' verbal information to visual or spatial terms, for example identifying or building a model which has been described verbally.
    - b. rephrasing the information from one level of abstraction to another; the students can summarize a story, or 'translate' a general principle by giving an example of it.
    - c. rephrasing the information from one verbal form to another, as in providing the literal meaning of figurative speech.
- ii. Interpreting
    - a. comparative relationships: The student can distinguish related from unrelated ideas; he can distinguish identical, similar, and different ideas, etc.
    - b. relationship of implication: The student understands the relationships between evidence presented and an implication.
    - c. relationship of generalization to supporting evidence: The student can survey a set of evidence and find within it a characteristic common to each piece of evidence, which leads to the generalization.
    - d. relationship of a skill or definition to an example of its use: A skill or definition is described for the student and he can identify or compose an example of it.
    - e. cause and effect relationships: The student can describe or identify the cause of specific effects.
- iii. Extrapolating
    - a. predicting the continuation of a sequence: The student can accurately predict an event on the basis of established evidence.
    - b. inferring: supplying data implied but not stated.
    - c. distinguishing probable from improbable consequences.

These comprise the cognitive objectives for the lessons of stages one and two, approximately one hundred lessons. The outline projected for stages three through six incorporates the processes classified as applying, analyzing, synthesizing and evaluating.

Inquiry is the language process by which these thinking processes are fostered in the course of each daily lesson. Inquiry as a learning tool has many advocates, recent among them Postman and Weingartner(1969), who reiterate its value as "the most powerful intellectual activity man has ever developed." They underscore the process of inquiry as a learning-how-to-learn tool, pointing out that "... once you have learned how to ask questions--relevant, appropriate and substantial questions, you have learned how to learn, and no one can ever keep you from learning whatever you want or need to know."

While much of the focus in inquiry education is on getting teachers to ask better questions (Guszak, 1967; Sanders, 1966) the power of inquiry as a learning-how-to-learn tool suggests that it should be at the disposal of the students, particularly in a program or curriculum which is heuristic in nature. The Listening program is designed with the optimism that curricula like Covington and his colleagues propose will flourish increasingly, but also with a practical view toward what is actually the case in many classrooms today, if the research on teachers' questions can be generalized at all. This practical view is the basis for designing the Listening program in terms of explicit lesson plans through which the teacher becomes familiar with the specific thinking processes that various kinds of questions can trigger. Further, the lesson plans direct the teacher's steps so that the children ask the questions.

Accepting the principle of appropriate practice of desired behavior as the best way to achieve that behavior, and in addition the notion that "the critical content of any learning experience is the method or process through which the learning takes place" (Postman and Weingartner, 1969), it makes sense to have the children learn to ask relevant, appropriate and substantial questions, and to value such inquiry, by actually engaging in this activity.

It is through this means--inquiry which triggers thinking beyond the recognition-recall level--that a transition can be effected from learning a second language to learning in a second language. The transition focuses on the difference between the communications objectives of second language programs and the objective of curriculum, which is (or ought to be) that of fostering thinking. Wilson explicated this point (Wilson, 1970) when he urged that children, beyond learning to communicate in their new language, must learn to think in it. For the children's benefit as maturing learners in a new language, the transition from language acquisition to a more sophisticated language-comprehension program must view the relationship between language and thinking as a process in which the two develop interdependently, and in which the relation of thought to word undergoes changes, as Vygotsky's work led him to conclude. (Vygotsky, 1962)

In the Listening program question-asking acts as the pivot for the transition from second language learning to learning in the second language. Question-asking is the constant language process used by the children for the communication tasks of their English as a second language program, and also for the higher level thinking tasks in the Listening program. The difference might be grossly illustrated as the difference in purpose between asking "Is Mary skipping?",in a situation where one child is skipping and another is clapping her hands , to practice yes/no questions with the present progressive tense and two forms of verb phrase; and asking "Is Mary skipping?" because you infer from the strange noises behind your back that six-year-old Mary has finally learned to skip, and you want to confirm or correct your inference.

Inquiring and thinking beyond the knowledge level (as Bloom et al describe it) are the major heuristic characteristics of the Listening program. By the nature of their presence as learner objectives in every lesson in the program they are both the means, or media, and the intended learning outcomes.

The Listening program was developed as a part of a comprehensive and innovative primary curriculum provided by Consultants in Total Education for Navajo children in Bureau of Indian Affairs Schools on the Navajo Reservation, and for Mexican American children in Fresno, California, public schools. Language skills taught to pre-first graders in the English as a second language component of the CITE curriculum provide the prerequisite foundation for the Listening program.

The children, through their ESL lessons, learned to ask the range of question types available in English-- the wh- questions, including simple how- and why- questions, and yes/no- questions. They learned to ask such questions when cued by an indirect question or command, at first from the teacher and then from another child. They asked these questions in the context of situations designed by the program writers to place all the language-learning in a meaningful context. The children's facility grew through participation in a systematic presentation including the major sentence patterns of English, and the processes of substitution, deletion, expansion, and transformation. Teacher's regular reports on the children's achievement of the question-asking and answering objectives in the daily ESL lessons indicated that they had acquired the language foundation necessary for using inquiry in the listening program.

The first step was to find out if such first grade children could switch from asking questions which were specifically cued, as in the ESL program, to generating original questions independently of such specific indirect question cues. For example, in the ESL program the children's questions were cued by the teacher's command, e.g. " Joe, tell Susie to ask Jim what he has.", and another child's subsequent question, e.g. "Susie, ask Jim. . .". In the Listening program the children's questions would be cued only by the teacher's minimal cue, "Who wants to ask a question?"

Data was gathered in three Navajo first grade classrooms participating in the second-year ESL program during the 1969-70 school year before the Listening program was implemented to find out if the children could and would generalize their question-asking skills to new content and respond to such a minimal cue. The teachers were asked to show two filmstrips the children had not seen before, and were instructed to use only the cue "Who wants to ask a question?" as they showed the filmstrips. The children were told at the beginning that they could ask any questions they wished about any of the pictures, including asking them of the teacher. This was to insure that the children would feel free to ask questions that they might otherwise not ask out of consideration for their peers who might not know the answers. This safeguard was particularly important because the children knew that responses were always readily available in the ESL lessons in which a child could respond correctly to questions by making correct choices from a minimal situation in which other children and objects were "set up" to perform the action being asked about.

To summarize the data recorded by the teachers:

i) all the children in each classroom volunteered to ask questions in response to the cue "Who wants to ask a question?"

ii) all the questions were relevant to the visual information presented in the frames about which they were asked.

iii) all the questions were grammatically correct, that is, normal American English.

This data was taken as indication that such first graders could be expected to have the question-asking facility, and the willingness to use it, prerequisite to the Listening program. Two other important features appeared in the children's questions recorded by the teachers. One feature was the nearly total focus on recognizing and recalling information, and the other was the predominant yes/no question pattern. Of the classroom average of sixty-five questions, sixty-three were questions like: "Are those chickens? Is that a man riding the horse? Are the foxes in the cave?" While preference for such specific information-testing questions might be interpreted as typical of the age group (Mosher and Hornsby, 1966), the more significant feature for development of the Listening program was the recognition-recall focus of the questions. The tentative implication was that, having learned to ask questions with this focus throughout the ESL program, perhaps it would be just as feasible to teach the children to ask questions for other purposes.

Inquiry, as it is used in the Listening program, includes seeking information that is readily available in explicit facts, but also includes seeking other kinds of information, for example, that which may be inferred on the basis of explicit facts, that which may be compared with the facts, and that which may be predicted on the basis of facts. In addition, inquiry is used for hypothesis-formation, a skill familiar to the children as demonstrated by their preference for information-testing questions.

The ability of a listener to hypothesize while he is listening, that is, to provide himself with an anticipatory set about the material, appears to be a significant aid to listening comprehension.(Keller,1966) The significance of the anticipatory set, as a strategy worth developing in the children, is additionally supported by its compatibility with the objectives of inquiry and cognitive processing beyond the recall level. It is a strategy the mass media have applied for years to keep listeners tuned in and focused on the purpose of the message: "How will Tarzan rescue Jane from the man-eating tiger? Will the no-enzyme detergent get the wash as clean as the enzyme detergent?"

While the message senders of our mass media will continue providing the message-receivers with such ready-made anticipatory sets, it seems most useful in a learning-how-to-learn program to have the listeners learn to form their own hypotheses before and during a communication by asking questions about it. The listener's anticipatory questions provide him a focus, a frame of reference through which to consider the incoming data. These questions are also valuable in that they can trigger thinking processes relevant to the message, and thus profitably exploit the thinking time availed by the differential between speaking rate and thinking rate, whether that is the estimate of approximately 200 words per minute one study showed (Touissant, 1966), or the thousands of words per minute suggested by the accomplishments of some speed readers. Both the listener's attention to the material and his purpose in listening to it are fostered by his anticipatory questioning. This helps the listener get to his tasks of associating the ideas within the material and associating his related experiences to those ideas.

The complexity of these and other processes required in comprehending relatively longer units of expression in the new, or second language suggests that some general objectives might be derived for sequencing instruction, and that specific objectives might foster daily success toward the long-range goal. The long-range objective in the Listening program is learner skill in comprehending a message, retaining the salient features of the message (through answering his anticipatory questions and summarizing the data), then using other resources to answer (i) anticipatory questions which were not satisfactorily answered by the message, and (ii) other questions generated as a result of the message.

Acquisition of an anticipatory set, and familiarization with the thought processes comprising comprehension skills (cf. p.4) are the general learner objectives for Stage One of the program, made up of fifty-four daily lessons of about one half hour each. The specific objectives for each Stage One lesson are for the learner to ask questions before listening to a story, and to answer such questions after listening to the story.

Each thought process is the focus for the stories in a sequence of several lessons. For example, in lessons sixteen through eighteen the children paraphrase from one symbolic form to another through such activities as building simple models after listening to an oral description of them, and selecting and sequencing illustrations appropriate to a story after listening to the story.

The general objectives for Stage One are accomplished by (i) a cumulative sequence of cognitive objectives extrapolated from A Taxonomy of Educational Objectives for the Cognitive Domain (ii) the procedural content of basic lesson format, and (iii) the design of the oral messages in story form to focus on a particular cognitive objective for each lesson.

The cumulative and sequential nature of the hierarchy of cognitive objectives which comprise the outline might be simply illustrated by pointing out the need for a child to have knowledge of certain categories and classes before he can apply the comprehension process of comparing relationships among them.

Procedural content of Stage One lessons provides a sequence of steps to insure learner success through observation and practice of the behavior specifically desired. A typical Stage One lesson is composed of three short stories, each story constructed as a paragraph of seven or eight sentences at most, drawing on the fund of language structure provided in the ESL program.

The function of the first story is to provide the learner a model analagous to his expected behavior. The teacher has a puppet ask anticipatory questions based on an introductory sentence she gives about the story she'll read. She reads the story, and then calls on volunteering chidren to respond to the questions the puppet asked in advance of the story. Children respond to the questions, and peers evaluate the responses for appropriateness, with the teacher assisting by confirming or correcting responses on the basis of the story.

The function of the second story is to provide the children practice in asking anticipatory questions based on an introductory sentence. Volunteers ask questions, and the teacher writes them on the chalkboard so they may be answered after she reads the story. As after the first story, the teacher again calls on volunteers to respond to one another's questions, and on other chldren to evaluate the responses.

The third story provides a final session in which the children ask questions before listening to the story, and answer them after listening to it. After this third, and last, story all the children respond to the advance questions by circling pictures on a worksheet. This tests the listening comprehension of all the children.

Each story in a lesson is designed to focus on a particular cognitive process, such as the extrapolation process of predicting the continuation of a sequence. Thus the introductory sentence for each story is designed to elicit specific questions about the story, i.e. questions about the sequence of events in the story, questions about the causes and effects in a story, questions about the generalizations which might be made on the basis of evidence presented in the story, etc.

The children's questions which are related to the particular cognitive objective of a story are called "planned questions." To answer these questions, the children have to apply the thought process which is the focus of the story. For example, here are the introductory sentences, the children's questions, and the story for an early Stage One lesson in which the focus is distinguishing related from unrelated objects, a preliminary to the later task of distinguishing related from unrelated ideas.

Teacher: I'm going to read you a story about Sammy.
He saw his breakfast on the table, but he also
saw something he didn't need for breakfast there,
so he put it on the floor.

Joe : Did Sammy see a car?
Carl : Did Sammy have a truck?
Ervin : Did Sammy have a cat?
Ilene : What did Sammy eat for breakfast?
Leona : What did Sammy put on the floor?

Teacher : Sammy was getting ready for school. He was all
dressed and ready to eat breakfast.
He looked on the table. He saw a plate of bacon
and eggs. He saw a glass of orange juice.
He saw his baby kitten, and he saw a piece of
bread. "Good," said Sammy. "Everything I want
for breakfast is right here on the table.
But I don't need this for breakfast," Sammy
laughed. "I'll put it on the floor."
He picked something up from the table and put it
on the floor. Then he ate his breakfast.

Here are additional examples of children's questions from the same Navajo class about another story in the same lesson, which had different content, but the same focus on distinguishing related from unrelated objects:

Renee : What did Bobby find?
Leroy : What did Bobby take to play baseball?
Renee : What did he leave in the closet?
Carolyn : What did Bobby think?
Garry : What toy did Bobby want?

The children who ask, answer, and evaluate the planned questions and responses focus on distinguishing the related and unrelated objects in the stories. Children who ask, answer, and evaluate the other questions and responses also have a focused purpose while listening. While the minimal set of planned questions focuses attention on the cognitive purpose of the message, the additional questions provide a broader perspective about the message. After the third story, when the children respond to the planned questions by marking pictures on a worksheet, application of the necessary thought process by all the children is tested.

Briefly, the formative evaluation supplied by teachers' response on questionnaires indicated their own enthusiasm in discovering that their children could ask such good questions. They provided samples of questions and responses with every report, and these substantiated their enthusiasm. The variety of questions asked in Stage One lessons is exemplified in these random examples from both Navajo and Fresno classrooms:

> Did the boy do what Emily wanted him to do?
> What kind of sounds did Jimmy hear?
> After Joe's balloon popped, did he want to go to the bathroom?
> Why did Danny put his clothes in one place and his toys in another?
> Will Larry get a big balloon or a small balloon?
> What did Mary Jane choose to play with?
> What did Penelope make disappear?
> How did she make it disappear?

Though these examples are presented here without association with the cognitive objectives of the lessons in which they were asked, they indicate the children's development in inquiry which is appropriate to the task at hand, relevant to their own curiosity as it was tapped by an introductory sentence, and substantial in the kinds of information it seeks from the stories.

Problems indicated in the teacher's reports for the first Stage One unit of six lessons reflect primarily a period of pupil adjustment in becoming familiar with the procedures in this new kind of lesson.

By the third lesson most of the children (on a scale of "all","most", "about half", and "a fourth or less") in every classroom were volunteering to ask questions after listening to the teacher's introductory sentences about a story. Problems reported for the rest of Stage One were a random assortment reflecting occasional difficulties caused by the size and accuracy of visual aids, inappropriate construction of introductory sentences for the objective of a story, and similar items which were remedied in revising the program for the second year of use.

The general objectives for Stage Two occur further along the continuum toward the long-range goal, with specific objectives for fifty more lessons. The comprehension processes are recycled in new stories, with some additions. For example, in Stage One the children compare relationships only by distinguishing related and unrelated objects. During Stage Two the comparative relationship lesson sequence expands so the children distinguish objects, then actions, and finally ideas, for their degree of relationship to each other.

The general objectives of Stage Two are to familiarize the children with strategies for increased retention of material, and to foster question-asking during a message as well as before it, concomitant with the long-range goal of hypothesis-revision, while listening. In addition, the implication of a message for further thinking and reaction is promoted by designing new activities to replace the picture worksheets at the end of each lesson. To provide for achievement of these goals through daily specific objectives, lesson procedures were adapted so that each lesson contains one longer story rather than the three short stories. This story is presented in two parts, a short introductory paragraph, and a longer conclusion. The children's objectives are to ask questions after listening to the first paragraph, then answer them after listening to the entire story. The children then contribute to an oral summarization of the story, which the teacher prints on large chart paper. The final lesson activity is playing a game, making models, dramatizing, or whatever activity results most naturally from the content of the story the children have listened to. For example, in a Stage Two lesson on paraphrasing, the children listen to a story about a child making his own picture book. The materials and the steps in the process are detailed in the story. After listening to the story, the children end the listening lesson by makingtheir own picture books following the same basic steps. These activities perform the testing function of the picture-worksheets of Stage One.

The objective of Stage Three is transfer of Stage One and Stage Two skills to other areas of school study. This might be envisioned as using for listening lesson content subject matter from science, social studies, health and safety, math, and so forth. Respect for the structure of the subject matter of these and other areas, however, suggests that certain Listening lesson characteristics might instead be applied to other subject area lessons.Within the design of the second grade curriculum developed by CITE, for example, the children are encouraged to ask questions before and during lessons in all subject areas. They answer these questions at the end of the lesson, classifying unanswerable questions as potentially applicable for the next lesson. The CITE reading program, too, is characterized by the children's selection of questions in advance of reading and then response to these questions after they have read.

But further development in listening is suggested by the research in this field if the learner is to benefit from the skills taught in Stages Onethrough Three. Two pieces of evidence indicate the further direction for the Listening program in Stages Four, Five, and Six. One notes the significant difference in the comprehension and retention of material by the listener who has a favorable anticipatory set in contrast with the listener who has an unfavorable bias at the outset. (Keller, 1966) The other notes the temporary paralysis that occurs when a listener hears a "loaded word," that is, a term that is emotionladen for him. (Toussaint, 1966) This might, indeed, cause a listener to "see red." While any practiced rhetoritician is aware of this, and uses it, school children are rarely taught how to handle the situation as listeners. If the learner can retain the relatively objective kind of anticipatory set practiced in the first three stages of the program, and then become skilled in recognizing propaganda techniques, perhaps his chances of becoming a skilled, mature listener will be increased. Toward this end, among others, general objectives for Stages Four through Six are designed. They refer generally to curriculum development for late second grade through fifth grade for second language learners.Maintenance of basic listening comprehension strategies from previous stages characterizes each new stage.

General objectives for Stage Four are further development of hypothesis-formation on the basis of a message, for example, asking questions initiated by information presented in the area of natural science; and familiarization with other resources for seeking answers to such questions, for example dictionaries and other reference works, resource speakers, and experimentation. The cognitive processes for this stage are characterized by the application skills described by Bloom, in which the student learns to select the appropriate knowledge and comprehension skills for solving particular problems.

Stage Five is characterized by transfer of the major strategies learned so far to understanding persuasive messages, including familiarization with various propaganda techniques. Analysis, synthesis, and evaluation skills described by Bloom are introduced in this stage An explicit objective is maintenance of objectivity in message-receiving. through awareness of the purpose of such messages and skill in individual hypothesis-formation, revision, and testing.

Stage Six recycles analysis, synthesis, and evaluation processes in more explicit terms, for a variety of purposes, including classifying messages by distinguishing between those whose value is self-contained (some humorous stories, fantasy, etc.), and those worthy of further investigation (some political rhetoric, traditional subject area studies, etc.). A main objective is for the students to evaluate messages for their major value, their critical contributions and errors in information and logic, and to demonstrate thoughtful reaction when it is both appropriate and of personal interest.

On the basis of Lambert's studies on young children being schooled in French as a second language (Lambert, 1970), the potential seems high for transfer of Listening program strategies taught in the second language to the children's native languages, that is, to voluntary application to message-receiving in Navajo or Spanish. Covington's reference to the need for coordinating such thought processes with more traditional objectives, such as acquisition of subject matter and assimilation of cultural values suggests another possibility for multilingualism and multiculturalism. The organization of cognition suggested by Bloom reflects the academic nature of English-speaking American educational institutions. Perhaps some basic Listening program strategies may be applied to other content substituted from the organization of thinking reflected in the culture of the native language.

The working hypotheses of the Listening program suggest a multitude of questions for study. Does this program effect better second language comprehension on the part of the children participating in it, than on the part of similar children who do not participate in it? What is the effect of the anticipatory set on children who generate it for themselves as contrasted with its effects on children who only listen to questions generated by their peers? What is the relationship of oral question-asking by Navajo children to their development of inner speech? Considering the potential for early intervention in the education of children, what would be the effect of introducing this program in the children's native language before first grade, and continuing it in the second language once sufficient fluency is gained in the second language? Its significance as a teacher-training program for beginning inquiry education is suggested by the unsolicited favorable appraisal of teachers who have implemented it in their classrooms. What would be the effect of a condensed version of the Listening program for the purpose of teacher training in recognizing and encouraging good questions on the part of children?

These questions suggest the scope of investigation possible on the basis of the Listening program, just as this model suggests possibilities for the better language education of young children.

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THE HOME-SCHOOL LANGUAGE SWITCH PROGRAM

GRADES K THROUGH FIVE*

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This paper reports on a longitudinal, community-based study of two groups of English-Canadian children (a Pilot and a Follow-up class) who undertook their elementary schooling exclusively in French for Kindergarten and Grade I, and then, from Grades II through V mainly in French except for two half-hour periods of English Language Arts. This report focuses on the working hypotheses that guided the evaluation and on the measurement techniques used to assess the program's impact on the cognitive development of the children. This educational experiment has universal relevance since it touches on an educational matter faced also by minority groups in all countries and by most citizens in developing nations.

The parents of the children were concerned about the ineffectiveness of current methods of teaching foreign languages, and were impressed with recent accomplishments in teaching science and mathematics in the early elementary grades. They also realized that, as residents of a bicultural and bilingual society, they and their children are part of a much larger experiment in democratic co-existence that requires people of different cultures and languages to develop mutual understanding and respect. An essential first step for them was learning the other group's language thoroughly. The program worked out may well serve as a model because the overall scheme (referred to as a home-school language switch) is simple enough to be tried out in other bi- or multicultural communities around the world, or, and perhaps of more importance, in essentially unicultural settings where a serious desire exists to develop second or foreign language proficiency. In any case, a basic educational issue is involved here: rather than estimating how many years of schooling should be provided in order to develop an undefined level of ability in a foreign language, the educator in this case asks how one goes about developing complete bilingual balance in the home and school languages (see Lambert and Tucker, 1971).

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The hypotheses that guided us are given below along with a resumé of the types of measures used and the overall results obtained. We have compared the linguistic, cognitive and attitudinal development of the Pilot and Follow-up experimental groups with control children carefully matched on non-verbal I.Q. and social class background, who followed normal English-Canadian and French-Canadian academic programs. The Experimental and English Control classes were also comparable as to parental attitudes toward French people and culture, and motivation to learn the other language; in fact if given the opportunity, the large majority of the control parents would have placed their children in experimental classes.

(1) What effect does such an educational program have on the Experimental children's progress in home language skills compared with the English Controls? The overall answer is that they are doing just as well as the Controls, showing no symptoms of retardation or negative transfer. On tests of English word knowledge, discrimination and language usage, the Experimental Pilot Class falls above the 80th percentile on national norms as do the

Controls, indicating that those in the experimental program do as well as the Controls and still perform at a very high level in terms of national norms. Their reading ability in English, their listening comprehension and their knowledge of concepts in English (Peabody Picture Vocabulary) are all at the same level as those of the English Controls.

All signs are favorable also as to their progress in English expressive skills. When asked to retell or invent short stories in English they do so with as much comprehension and with as good or better command of rhythm, intonation, enunciation and overall expression. Their spontaneous productions are as long and complex and their vocabulary as rich and diverse.

Their facility at decoding and utilizing descriptive English speech produced by children or adults is also at the same level as that of the Controls, and their word associations in English show as much maturity and appropriateness. Since they were at the same time reliably faster in making associations in English than the Controls, their speed of processing English may be advanced over that of the Controls.

(2) How well do children progress in developing foreign language skills under such a scheme when compared with children from French-speaking homes who follow a normal all-French program of study? The answer is that they fare extremely well. Their French listening comprehension score was comparable to that of the Controls from Grade II on, and their knowledge of complex French concepts, measured with a French version of the Peabody Picture Vocabulary Test, is remarkably advanced. In fact, at the Grade IV level, they score at the same level as the French controls. From Grade I on, they have developed native-like control over the smaller units of French, but when asked to retell and invent short French stories, the linguists

rating their oral proficiency find that their rhythm and intonation and their overall expression in French are noticeably inferior to that of the French Controls, even at Grade IV. Still, they have much better overall expression, enunciation, and rhythm and intonation when inventing stories of their own rather than simply retelling stories, suggesting that they are particularly motivated and clever when permitted to express their own flow of ideas with their own choice of expressions. The verbal content of their productions in French is as long and complex as that of the Controls and shows a similar degree of comprehension and vocabulary diversity. They make more errors in their French productions, especially errors of gender and contraction, but after Grade II, they do not make more syntax-type mistakes. Their free associations in French are as rapid, mature and appropriate as those of the Controls. They also show as much aptitude as the Controls in decoding spontaneous descriptions given by French adults or children their own age. By Grade IV, however, they are no longer as able as native speakers to decode the descriptions of children even though they are still as proficient as the controls when decoding adult descriptions. Amazing as the progress is when one considers their concurrent standing in English competence, there is room for improvement in the expressive skills in French, assuming that it is desirable to become native-like in the spoken aspects of the language. Imaginative changes could be introduced into the program as it now stands so as to assure the high level attained in the more passive skills while increasing expressive capacities as could easily be done by teaching physical education, music and arts (subjects that lend themselves naturally to social communication) in French. Teachers, new at this type of program as they all were, have perhaps overlooked the need to compensate for the lack of occasions outside school for improving skill in French expression. We believe now that attention can be directed to the content and fluency of the child's speech without sacrificing appropriate form, structure and style. Interaction with French children (up to now practically non-existent) would also improve the decoding abilities.

(3) How well do children following this program perform in comparaison with Controls on tests of a non-language subject matter such as mathematics? The answer is that they perform at the same high level (both groups scoring beyond the 80th percentile) in both computational and problem-solving arithmetic tests. One can be confident that these children have been as able as the French control groups to grasp, assimilate and utilize mathematical principles through French, and that they are able to transfer this knowledge, acquired exclusively through French, to English when tested in arithmetic skills through English. The teachers in the Experimental program are not better trained in mathematics than those in the Control classes nor is more time devoted to mathematics; their texts are French versions of those used in the English Control classes.

(4) What effect does a bilingual program such as this, extended through Grade IV, have on the measured intelligence of the children involved? There is no sign at the end of Grade IV of any intellectual deficit or retardation attributable to the bilingual experience judging from yearly retesting with Raven's Progressive Matrices and Lorge-Thorndike tests of intelligence. On the standard measures of creativity there is evidence that the Experimental children are also at the same level or slightly advanced in generating imaginative and unusual uses for everyday objects. This mental alertness is consonant with their generally faster

rate of making free associations in English, noted earlier.

(5) What effect does the home-school language switch have on the children's self concepts and their attitudes towards French people in general? At the Grade II and III levels their attitudes were much more fair and charitable than those of the English and French Control children. They were less ethnocentric and less biased towards their own ethnic group, and they had healthy views of themselves as being particularly friendly, nice, tall and big but not extreme in smartnesss or goodness, suggesting that suspicion and distrust between groups may be effectively reduced by means of this particular academic experience.

However, in the Spring 1970 testing, we found both the Grade IV and III level groups essentially similar to the English Controls in their attitudes: neutral to slightly favorable toward European French, more hostile towards French-Canadians and clearly favorable to their own group. We are not certain what caused this shift, eg... the French-Canadian demands for separatism that were intense at this time; a realization that the few French-Canadians they meet at school happen to be from a lower social-class background and are academically poorer; or just wanting to be like others in their peer group as they grow older; i.e., not wanting to appear too French.

In the Spring 1971 testing, when the Experimental groups had moved up to the grade IV and V levels we surveyed their attitudes in greater detail and compared them with the English Control classes. Here it became very evident that the Experimental children are able to use the French language so effectively that they are able to communicate with and establish satisfying friendship with French-speaking people. Thus in contrast to the English Control children they have developed sufficient language competence to enable them to enter into the French-Canadian sphere of social activities, to understand and appreciate French people and French ways to a much greater degree, and to consider themselves as being both French and English Canadian in make-up. Furthermore they are extremely satisfied with the French program offered them and reject the idea of switching now to an all-English program. In contrast, the Controls who have had hardly any French training relatively, other than a standard FLES program, feel they have had too much French and are much more favorable to the possibility of switching to an all-English school system.

Finally, there is no evidence that the self concepts are confused in any way since the Experimental children at all grade levels describe themselves as being very good, happy, strong, friendly, etc., relative to the Control children's self ratings.

In Perspective

Although the procedure seems remarkably effective in this Canadian setting, permitting us to challenge various claims made about the harmful effects of early bilingual education, still the scheme is not proposed as a universal solution for those nations planning programs of bilingual education. Instead a more general guiding principle is offered: in any social system where there is a serious widespread desire or need for a bilingual or multilingual citizenry, then priority for early schooling should be given to the language or languages least likely to be otherwise developed or most likely to be neglected. In the bilingual case, this will often call for the establisment of two elementary school streams: one conducted in language A and one in language B, with teachers who either are or who function as though they were monolingual. If A were the more prestigious language, then native speakers of A would start their schooling in B, and after functional bilingualism is attained, use both languages for their schooling. Depending on the socio-cultural setting, various options are open to the linguistic minority group: pre-kindergarten or very early schooling, with half day in B, half in A; concentration on B until reading and writing skills are certified, with switching delayed; or a completely bilingual program based on two monolingually organized streams, etc. Rather than teaching languages A and B as languages, emphasis in all cases would be shifted from a linguistic focus to using the languages as vehicles for academic content.

The Province of Quebec provides a convenient illustrative example. Here the French-Canadians - a national minority group but a clear majority in the Province - have a fairly powerful political movement underway based on French as the "working language" and a desire to separate politically from the rest of Canada. For English-speaking Canadians who see the value and importance of having two national languages, the home-school language switch as described here is an appropriate policy since French for them would otherwise be bypassed except in typical second-language training programs that have not produced the required proficiency and since it is certain that the use of English will be supported because of the English nature of the rest of Canada and the proximity to the U.S.A. French-Canadians, however, have reason to fear a loss of their language faced as they are with the universal importance of English and the relatively low status attached to minority languages in North America. French-Canadians also may denigrate their dialect of French, since it is at variance with that version given such high status in France. The home-school switch would worry them, as it would any North American minority group, because they believe that English would easily swamp out French, and that their home language is not standard enough, making training in "school" French a requisite. In such circumstances, a valuable alternative would be to start a pre-kindergarten program at age 4 with half day in French and half day in English taught by two different teachers presenting themselves as monolinguals, continuing through kindergarten. Starting at Grade I, two separate academic offerings could be instituted, one fully French and the other fully English, with options for each student to move from one to the other for one or several courses until the two languages are brought to equivalent and high-level strengths. Such a program could, of course, integrate French- and English-Canadian children who so far have remained essentially strangers to one another because of separate schools based on religion and language.

In the Canadian setting, however, political decisions could have important counteracting consequences. For instance, a widespread movement for unilingualism and separatism could postpone the thorough mastery of English beyond the receptive early years and all the advantages of being bilingual could easily pass from the minority group to the powerful English-speaking majority whose children now have the opportunity to become fully proficient in French and English.

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BILINGUAL LEARNING FOR THE SPANISH SPEAKING PRESCHOOL CHILD

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BILINGUAL LEARNING FOR THE SPANISH SPEAKING PRESCHOOL CHILD

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Although numerous early childhood projects have focused on the development of educational programs for disadvantaged children, relatively little specific attention has been given to those children in our society who enter school speaking a language different from that of the wider community. For example, approximately 40 percent of the more than five million persons in the United States of Mexican origin or ancestry live in Texas. Most of these persons are native Spanish speakers living and working in an English speaking society. The 1960 census in Texas reported that the median school years completed by the Anglo population over twenty-five years of age was 11.5 years. But only 6.1 years for the comparable Spanish surname population. Typically, the Mexican American child--urban and migrant--with a home language of Spanish, reaches school age with little knowledge of English. His proficiency in Spanish is often limited as well. One result is that a large percentage of Mexican American children in Texas fail the first grade. They fail because they are so involved in learning English they cannot master first grade content.

According to Dr. Bruce Gaarder of the United States Office of Education, bilingualism can be either a great asset or a great liability. In our schools millions of children have been cheated or damaged, or both, by well intentioned, but ill informed educational policies, which have made of their bilingualism an ugly disadvantage in their lives. Children entering school with less competence in English than monolingual English speaking children will probably become retarded in their school work to the extent of their deficiency in English, if English is the sole medium of instruction. On the other hand, the bilingual child's conceptual development and acquisition of other experience and information could proceed at a normal rate if the mother tongue were used as an alternate medium of instruction.

Research on bilingualism indicates that whether or not bilingualism constitutes a handicap, as well as the extent of such a handicap, depends upon the way in which the two languages have been learned. The result of a study conducted in Montreal by Lambert indicated that if the bilingualism was balanced, that is, if there had been equal, normal literacy developed in the two languages, bilingual ten-year-olds in Montreal were markedly superior to monolinguals on verbal and nonverbal tests of intelligence. They appeared to have greater mental flexibility, a superiority in content formation, and a more diversified set of mental abilities.

Proficiency in two languages is not, however, a sufficient goal for bilingual education. In the United States, increasing emphasis has been placed on the need for educational interventions which will provide the non-English speaker with the concepts necessary for success within the public school system. Initially, designers of such interventions focused on linguistic problems relevant to learning a second language. As these approaches began to be applied in experimental learning contexts, it became evident that the learner progressed more rapidly on both concept and language acquisition when he did not have to learn the concept through the new language, but rather was permitted to use his own language for concept acquisition. The subtle implication of this is that concept acquisition is facilitated by use of one's first language, not only because the language is familiar and presents no interference to the assimiliation of content, but also because the new concept can be readily tied to existing concepts within the learner's ideational system. Further, the integration of a new concept with familiar concepts is facilitated when the referents of the new concept grow out of the same culture as the referents of the familiar concepts.

This suggests that the concepts which the non-English speaking child in the United States brings to school with him are far more sophisticated than his faltering use of the English language and lack of familiarity with the Anglo middle-class culture of the public school give him the opportunity to demonstrate. It also raises questions about the most appropriate way to teach English to non-English speakers in the United States, and the most appropriate way to tie concepts based on the Anglo culture to the existing culture-derived concepts of the learner.

One institution for which this question is of primary concern is the Southwest Educational Development Laboratory located in Austin, Texas, and one of eleven regional laboratories created by the federal government to improve the quality of education within the United States. Children who are economically disadvantaged or culturally different compose SEDL's target population. The majority of the children within the target population speak little or no English when they enter school.

In determining the philosophy and approach for the creation of the Bilingual Early Childhood Education Program, the Laboratory drew upon research literature in the fields of bilingual education, early childhood education, and educational psychology; the empirical research conducted by the Laboratory's Migrant Educational Development Program on the educational needs of Mexican Americans; and the basic development goals of the Laboratory.

Staff members with varied background--educational psychologists, developmental psychologists, early childhood specialists, learning disability specialists, linguists, research and evaluation specialists, bilingual teachers, paraprofessionals, and parents--helped to identify strategies for the instructional program. Their knowledge contributed to the design of instructional sequences that matched the developmental needs of the children. Their interaction during the design stage minimized the possible conflicts that could arise between the curriculum of the school and the culture of the home.

Specific assumptions regarding the target population support the instructional program. These assumptions are based on extensive observations both in the home and the school, as well as objective test data, and represent the strengths developed during the child's early years.

1. The Mexican American child at age three comes to school with a language. He can communicate effectively in Spanish with both adults and peers.
2. For the most part, his basic perceptual abilities are intact and there is no evidence of the existence of unusual or extensive learning disabilities.
3. Due to the existence of a strong family system the majority of the children have developed many of the inter-personal skills that usually do not emerge until later years.
4. The child has had many meaningful experiences within his home environment and brings to school an experiential knowledge base.

Goals for the instructional program build upon the strengths identified in the target population. All instruction begins with the child's home language. Acceptance and usage of the child's language is critical to the development of a healthy self-concept. The objective of the program is to build up competence in the child's first language by expanding his basic fund of information and only after a child has demonstrated mastery is the concept introduced in the second language.

Building upon intact basic perceptual abilities, experiences have been designed which require that the child use all sensory channels available for encoding and decoding information. These activities systematically focus on a sequential presentation of sensory motor experiences to which language can be attached through the use of concrete objects that are perceptually meaningful.

Typically, the three-year-old Mexican American child has internalized the values of cooperation, sharing, and independent responsibility for many of his basic needs. Extension of these strengths in terms of program goals involve the development of individually assigned tasks which enable the child to work toward an increased attention span, persistence in task completion and self evaluation.

Content of instructional units is carefully selected to relate meaningfully to the child's experience background. Instruction during the first weeks of school systematically focuses on the child's new environment. People in the room are identified, rules of behavior are specified, and instructional materials are located and labeled. This initial introduction to school is followed by materials on self-awareness. This enables each child to become more aware of himself as he relates to others, which he must do before he can meaningfully perceive his new environment. Instruction sequentially moves from the familiar to the less familiar. Stereotyped concepts are avoided, both for the child's culture and the dominant Anglo culture.

Unit organization integrates and reinforces the skills learned in the different types of lessons. Whenever possible, lessons in all areas have been planned to correlate with concepts introduced in the unit. Since many of the new concepts are unfamiliar to the child, he cannot be expected to fully master them in just one lesson. The unit approach allows opportunities for him to become familiar with these concepts in several types of lessons and to apply them in other contexts.

In all its aspects, the program moves sequentially from what the child knows to what he does not know. Concepts appear first in Spanish, then in English; content begins with concrete objects, moves to pictures and two-dimensional representations, and concludes with only the use of words. Within each skill level the child builds gradually in small steps, adding new elements to his skill or learning new applications for skills acquired in other contexts. Because of the unit construction, new knowledge and skills from one type of lesson can be reinforced, in either language, in different types of lessons. All of these features integrate the program and insure that the child's learning is firmly grounded, meaningful to him, and useful for thinking and problem solving.

The English language component of the preschool and bilingual kindergarten programs, has been strongly influenced by the Navajo Bilingual Academic Curriculum, prepared under the direction of Robert D. Wilson. This influence is particularly evident (1) in the underlying assumptions of the component (drawn from linguistic, learning, and pedagogical theory), (2) in the broad objectives of the component, (3) in the selection and sequencing of the material presented, and (4) in the basic teaching procedures used.

The English language component is firmly rooted in the notion that language is, basically, an internalized, self-contained system of rules according to which sentences are created, spoken, or understood. To "know a language" is to have internalized the system of rules according to which native speakers of that language utter and understand sentences. The goal of the teacning of English, then, is for the learner to internalize the set of rules according to which (1) he can create and utter sentences that an English speaker will readily understand, and (2) he can readily understand the English sentences spoken by others, sentences which he may never have uttered or heard before. It is the learner's ability to speak and understand sentences beyond those used in the teaching, that must be the final test of an English language program for non-native speakers of English. If at the end of a language program the learner is able to speak and comprehend only those sentences included in the language program, then he has learned the language program, but he has not learned the language. The language program described in the following pages is designed (1) to reveal to the learner, through carefully selected and sequenced English language samples, the system which underlies the particular sentences used, and (2) to involve him actively in the use of the language structures so revealed. The particular sentences used in the program do not have tremendous significance in and of themselves. They do not convey weighty meanings, but rather are clear manifestations of parts of the underlying language system according to which the child will ultimately comprehend and produce many other English sentences.

Each element of the basic definition of language (above) has been crucial in shaping the Basic English Language Structures Program. Let's look at those elements one by one, to see how the key concepts in this notion of language (rules, internalized, system, self-contained, spoken or understood, created) have shaped the writing of this component.

Rules

Far less time is available for teaching our students their second language (English) than was available for "teaching" them their first language. Since we can provide our students with only a very limited amount of "second language data," we will have to control, to structure, that language data, if we want our students to evolve--in a short period of time--a system of rules like the native speaker possesses.

This English language program controls the language data presented to the child in three ways:

1. Selection: The items (rules) taught are those which are most general and basic, those which constitute the skeletal framework of English, those which are the fundamental elements, relationships and processes according to which native English speakers form, utter, and understand sentences. No nursery rhymes are included; no "pleasantry language" is introduced (e.g., "How are you? I'm fine. What's your name? John. Where do you live?" etc.); and very little vocabulary is taught. (This component often uses the vocabulary taught in the other components). In short, it is the goal of revealing the system of rules of English that has governed the selection of items for the lessons.
2. Sequence: The selected items are arranged so that the step the child takes from one rule to the next is small (e.g., "John is hopping," then, "John

is hopping to Mary."); so that the new rules are constantly integrated with those previously learned (enabling the child to build a system of interrelationships); and so that flesh is gradually put on the skeleton --the basic framework--by returning to rules and relationships learned earlier in a simple, basic (and accurate!) form, and expanding them at increasingly complex levels. This involves spiral learning, not unlearning re-learning.

3. Amount: In each lesson the number of new rules taught (or the number of new relationships among familiar rules taught) is strictly limited. The aim is that the child completely control a basic framework according to which he can organize and interpret language he encounters subsequently, rather than that he be superficially exposed to a wide range of rules. However, the activities in which the language is used, the games and procedures in which the children are involved, are deliberately varied. It is the language patterns presented and not the children's active participation, that is limited in each lesson.

Besides controlling the amount, selection and sequencing of language data presented, the program employs a basic teaching method which increases the probability that the learner will internalize the set of English rules. In each lesson there is a period of initial listening for the child, approximately three minutes long. During this period, clear, sharply-focused examples of the rule(s) for that lesson are presented, from which the child can induce the rule(s). We have all known far too many children learning English as a second language who say things like "I jumping" or "This a block." Many of these children were required to produce unfamiliar sentences in the new language before they had been given ample opportunity to listen to those sentences, to process them mentally, to grasp the elements and combinations of elements that were present. Traditionally, experts in the teaching of English as a second language have told us "Listening first, then speaking..." But few programs have taken this advice to heart (the "Wilson program" being a notable exception). This program does take the "listening first" advice to heart; in each lesson the child is to listen first and induce the rule, and then to speak, applying the rule in a way (verbally) that will enable the teacher to provide feedback as to the correctness of his induction. Notice that the listening is prior to the speaking; it does not replace it.

There seems to be some confusion among second language teachers, about what "listening" and "speaking a language" are. Some have regarded listening as a passive thing--as simply the absence of saying something. But "listening" is used here to refer to a very active and demanding process, that process in which the brain organizes, structures, interprets, relates the sounds it receives. Development of this kind of listening ability clearly has significance for the child which reaches far beyond its importance to him in learning English. Throughout his school career (and beyond), keen listening ability can be one of the child's greatest intellectual assets.

Some have regarded "speaking" in the second language as little more than making verbal noises using some vocabulary items from the second language. But to speak sentences in a language is to engage in rule-governed behavior; it is to apply rules which one has discerned. One cannot apply rules which he does not possess. Far too much of our verbalization in the second language classroom has required children to utter strings of sounds which they have not yet processed mentally through active listening. By having the children listen first and then speak, this program aims to substitute rule-governed

English verbal behavior (i.e., "speaking English"!) for the all-too-typical uttering of strings of verbal sounds.

This procedure of moving from inducing the rule through active listening to applying the rule in speaking, is sound scientific procedure as well as sound second language learning procedure. The scientist observes particular cases and makes a hypothesis based on his observations; the second language learner listens to particular English language samples and induces the rule--the pattern of elements and combinations--underlying the samples he has heard. The scientist tests his hypothesis in a controlled situation and either confirms or disconfirms it; the second language learner speaks sentences according to the rule he has induced, and receives feedback from the teacher as to the correctness of his induction. The scientist makes his steps very explicit; the five-year-old Spanish speaker learning English does not. But the process this language program employs is composed of a comparable set of steps to discover and confirm language rules from a given set of data, just as the scientist attempts to discover and confirm physical laws or principles from his data. In using this learning procedure, the child is developing a powerful tool for all his learning, not just for language learning.

Internalized

At no point in the English language program is the child explicitly told a rule; at no point is he told what does or does not occur in English. Rather he is shown, through carefully selected and sequenced representative samples of English sentences; what does occur in English, what kinds of basic elements and combinations the language does include. Further, at no point in the program is the child asked to explain or justify why he selects and combines certain elements in one way rather than another. He is simply expected to induce rules from the samples provided, and then to speak and understand according to them. We know that very few native speakers of a language are able to specify accurately to "externalize"--the set of rules governing their speech and understanding. We don't ask this of second language speakers, any more than we ask it of native speakers. And we know further, that ability to specify the rules does not cause a native speaker of English to be a better speaker of English. The group of native English speakers who are linguists by profession and are able to specify the rules of their language, do not speak English better than the group of native English speakers who are physicists by profession and who are unable to specify the rules of their language. So--the child in this program will not listen to or speak language rules; rather, he will listen and speak according to language rules which he will internalize from the data provided.

System

An effort is made throughout the program to teach each part of the system in its entirety. For example, the entire set of subject pronouns is presented, then the entire set of object pronouns. The whole set of articles, of basic verb types, of basic adverb types, of basic question types, etc.--the total set of significant structures within some area of English syntax is taught, rather than just those specific items which are used most frequently in conversation. Further, the structures taught are deliberately presented in various combinations and relationships. Within each lesson, related question and answer structures are paired (as is done in the "Wilson program"). New structures are regularly integrated with those previously learned. Many lessons are included which do not present new structures, but serve only to relate previously learned structures in new ways. And so the program gradually reveals the system: by presenting the total set of significant elements and relationships for each major syntactic area, by constantly combining and re-combining familiar structures, by incorporating new structures with those already learned.

Self-Contained

Contrastive studies of Spanish and English, and the past experience of those who have taught English to native speakers of Spanish, have been helpful in suggesting which parts of the English language system may be troublesome for the native Spanish speaker to learn, at which points the learner may encounter strong interference from Spanish. This information has helped us decide how much time to devote to the teaching of the various parts of the program. But the information from contrastive analysis and teachers' experience, has not guided our selection of what to teach. Only the English language system itself--without reference to Spanish or any other language system--can determine what must be taught. And what must be taught is precisely the set of rules basic to English. This English language program is not a patch-work, a bits-and-pieces approach designed to prevent particular predicted errors. The child is not told "In Spanish you say X; in English you say Y." He is not encouraged to think of Spanish and English as sets of equivalences or near-equivalences. He is, rather, encouraged to learn English wholly within the system of English, to "think in English."

Spoken or Understood

This program provides for both of these basic language behaviors by utilizing listening activities followed by speaking activities in each lesson. The typical movement of the child's participation in a lesson is from listening only (approximately three minutes), to listening and overtly responding (e.g., following commands, nodding or shaking his head in answer to a "yes-no" question), to answering questions (responding to conversation initiated by someone else), finally to asking questions and giving commands--i.e., taking over the full responsibility for initiating and propelling conversation. Of course the later activities in a lesson require active listening as well as speaking, for the child is responding to meanings in his speech; he is not unthinkingly parroting a teacher's question or answer in a group.

Created

How does the program move the child toward the creative use of English, toward that capacity which the native speaker possesses to say sentences he has not previously encountered? Obviously, by presenting him with, and having him practice using, the basic system according to which such sentences can be formed. But also, by having the child select and ask questions in virtually every lesson, (and not simply give rote answers), and by accepting--indeed, encouraging--a variety of verbal responses, the program conveys to the child the notion of flexibility, the idea that this language allows for infinite variety within the rule system. This notion is crucial to his eventual creative use of English. There is progressive movement from close control of language structures toward more flexible use of the language, both within individual lessons and within each level--each year's sequence of lessons.

Basic Tenets

The following principles apply throughout the Basic English Language Structures component:

1. Realistic situations. The situations which provide the context in which the language structures of a lesson are used, are as appropriate and natural as possible. For example, the child who is going to ask a question about an

action which was performed does not hear the teacher give the command for that action and does not see the action performed. If he heard the teacher's command ("Jump, John.") or saw the action performed, he would have no reason to ask the question "What did John do?"--he already knows, so his question would just be carrying out drill practice in asking questions, it would not be practice in using language in a purposeful way. Every effort is made to keep the classroom situations from becoming "drill-like"; we try to keep them "life-like," for it is in life, not in drill, that we want the children to use English.

2. Meaningful responses. There is no mindless parroting of teachers' utterances written into this program. There are no instances like the following:

Teacher: What's he doing? (Say it.)
Children: What's he doing?
Teacher: He's running.
Children: He's running.
Teacher: What's she doing?
Children: What's she doing?
Teacher: She is walking.
Children: She is walking.

The reason for the exclusion of such parroting is simple: such parroting is verbalization, but it is not language, and language is what we are teaching. Language involves meaning, and therefore we teach the child to create, utter, and respond to sentences which convey meaning. This involves the "mindfulness" of inducing and applying language rules, not the "mindlessness" of repeating strings of sounds. Also, language involves a variety of responses, but parroting allows only prescribed responses.

3. Individual response. The children do not speak in chorus in this program because that is simply not the way people speak a language. (When was the

last time you conversed in chorus?) It is language, not choral speaking, that we are teaching. Further, speaking in chorus invariably distorts the natural rhythms of the language, so that the children end up practicing chanting, but not practicing speaking a language. And finally, the very individual errors that the teacher needs to hear and correct are hidden when the children speak as a group, and we end up with still more "I jumping" children.

4. Acceptance of all appropriate responses. Every correct and appropriate response (question, answer, nonverbal response, or whatever) is accepted, even if it is not the response the teacher expected and was hoping to practice. This is so much harder than it sounds! But the teachers using the program are trained and regularly reminded to keep in mind always, that the greater the variety of acceptable responses the children give, the more we know that they are moving toward that ultimate goal--the creative use of English.

5. Emphasis on questioning. If a child does not know how to question, his power for learning is severely limited. The children ask questions in every lesson. The program teaches the children (a) to ask questions (in lesson after lesson, questioning is the fundamental activity), (b) how to ask questions (how to formulate each basic type of question syntactically), and (c) to select appropriate, relevant questions (to select their own questions in various situations).

6. Use of complete forms followed by use of shorter forms. When a new structure is introduced, it is given in its complete form, even though the full form might seem somewhat unnatural in conversation. This procedure (as usual) comes from our concern that the children induce the language rules. Elements in and relationships between structures are more apparent in full

forms than they are in shortened, more conversational forms. For example, the parts of and relations between

"*He* *is* running." and "*He* *is* *not* running."

or

"*He* *is* running." and "*Is* *he* running?"

are more immediately apparent and more unambiguous than the parts of and relations between

"*He's* running." and "He *isn't* running."

or

"*He's* running." and "*Is* *he* running?"

With the full forms, the addition of the negative element ("not") to the basic sentence, and the rearrangement of the "He is" to "Is he" in the question are obvious; with the shortened forms, this addition and rearrangement are less obvious.

Just as it is important to present the full forms initially so that the child can internalize the systematic processes which are operating, so it is important to move to the more conversational shorter forms once the children "have" the rules. Moving from the full to the shorter forms is not only important because the shorter forms are the more natural forms for native speakers to use, but also because they demonstrate the operation of another important process in English (and in every language):--that of deletion. The full forms of new structures are written into the dialogues initially, and the shorter, more conversational forms are written into the dialogues later.

7. *Initial emphasis on syntax, not vocabulary*. Lessons in this program include the teaching of vocabulary. However, vocabulary teaching is not the main purpose of the lessons. For the first part of the program, particularly,

only enough vocabulary is taught to enable the children to use the structures with some flexibility. Later, with a shift in emphasis to content teaching (after some degree of syntactic control is assured), vocabulary teaching becomes more important. Further, much of the vocabulary teaching is done in other components.

The points discussed so far all concern the structural aspects of the English language program: learning to use the processes for speaking and understanding English, learning how to manipulate the sounds, words, sentences of English, learning how to select elements and combine them in ways that convey intended meanings. What does the program do about the functional aspects of English? What about English as a tool for learning, for conceptual development? What role can learning English play in self-concept development?

There is a definite shift of focus in Level III of the three-level preschool program and in the latter part of the one-year kindergarten program, from learning to manipulate the syntactic structures of English, to utilizing those structures in conceptual learning. That is, the first part of the preschool and kindergarten programs develop the child's capacity to express meanings in English, assure that he has some facility in the mode of expression; and the latter portion of each program uses that expression in developing intellectual concepts. The syntax of English is the end in the first part of the program; it is the means to the end of cognitive development in the latter part of the program. This arrangement assures that the child will, at any one time, be focusing either on gaining control of the expression (the syntax of the language), or on gaining control of the content (the basic concepts and "world view" of the native speakers of the language), but he will not be required to cope with the two difficult areas (expression and content) simultaneously.

Notice that the two parts of the programs are not unrelated. Several learning processes which are basic to the expression-focus part of each program are also basic to the content-focus part of each program. Throughout the first part of each program, there is a major emphasis on questioning: in every lesson the child asks questions. He is systematically taught to use the various types of question structures; he is given frequent opportunities to select appropriate questions in various situations; he is submerged in the notion that questioning is a good thing, and that this behavior is appropriate to the school setting. And this same emphasis on questioning continues throughout the latter portion of the English program. Also, the basic procedure of first inducing the rule through listening and observation, and then applying the rule in progressively freer, less controlled situations is constant throughout the program. In short, in the first part of the program the child is learning English, but he is also learning how to learn. These procedures for learning are utilized throughout the program and lend continuity to it.

Finally we should ask "Does the Basic English Language Structures component serve in any significant way to enhance the child's good feelings about himself as a worthwhile human being?" There is little empirical data about what "self-concept" is and how it is positively developed; mostly we play our best hunches. However, we feel certain that building success upon success in the child's school experience can only serve to increase his feelings of personal worth. The English lessons try to assure the students' success by:

1. carefully controlling the amount of structure being focused on within each lesson, so that the child knows that he will be responsible for

a limited goal that is within his reach;

2. informing the child clearly at the outset of each lesson, what it is that he is responsible for in that lesson;
3. providing ample practice of new structures and relationships, in each lesson moving from teacher to student control of the use of the structures;
4. steadily sequencing and regularly integrating the syntactic structures;
5. providing immediate, unambiguous feedback about the child's response, and--if his response is in error--informing him of what his error was and what the correct form is;
6. evaluating, at the end of each lesson, the child's ability to use the new structure or the new relation of structures which was presented at the outset of the lesson and practiced throughout, so that the child leaves each lesson with the definite and concrete knowledge that he has --once again--mastered the objective.

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Some linguistic and stylistic features of Child Black English

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This paper is a result of a linguistic seminar[1] and further individual study which focused attention on Child Black English. In becoming acquainted with the varieties of Black English (hereafter BE) we became increasingly aware that it is a language of power and vitality. Besides exemplifying the well-known abilities of rhyming and rhythm, it is a language rich in vocabulary, much of which is not known to the mainstream community; creative in metaphor; innovative in compuounding and replete with subleties of irony and humor, which undoubtedly result from the exigencies for survival.

While reviewing the literature on Black English we collected a list of terms such as the following, which are used in some types of publications to describe BE or the speakers of this variety of language: pathological, disordered, lazy speech, disadvantaged, therapy, remedial, substandard, deviant, difficulties, corrective, handicapped, impoverished, inability, limited, deprived, deficient, nonverbal. None of these terms could be applied to the texts that we have transcribed and analyzed. Above all we found that these children have adequate language with a wide range of vocabulary and ability to express themselves in their own settings.[2] Recognizing the language differences and attempting to understand the children will, hopefully, strengthen the hands of the educators who have been stunned by the numbers of dropouts and failures in schools. From the various studies now across the nation, there is enough information available so that language exercices and lessons can be constructed that will be productive in carrying the children over to a second dialect which they will find useful in other realms of society. It should be emphasized that the language we speak of here is not the language of all Black children, i.e. those who learned mainstream English from infancy. Also it should be emphasized that there are many styles and varieties of BE, as in any other language. As one Black scholar has reminded us, unfortunately, BE has sometimes been associated only with pool-room language and this has added to the confusion and difficulty in defining BE.

When we went over the tapes the second time Smith listed examples where the investigators heard or interpreted wrong or did not understand the children. Some of these were simply not knowing the vocabulary, for example, "cause dat gran'father got jugged in his heart" (II, p. 11[3], "jug" means to stab[4]). A more subtle kind of misunderstanding involves the intricacies of Black grammar, for example, tense-aspect, referents, and styles of speech. At the beginning of one taping session a cooperative child volunteered, "One haf to say it". (II, p. 1) It appaered that the investigators did not understand that the child was trying to establish the procedure, i.e. that only one person at a time could talk on the recorder. At another recording session, the investigators misheard "it" when the child said, "Whon' chu make it go fas', so i' kin go..." (I, p. 6) meaning "Why don't you make the recorder go faster, so our recording session will be more effective?" The investigators thought the children meant that they wanted to leave and launched out on a discussion of why the children should stay put!

A further example of misunderstanding occured when the child used a play on words which is called "opposites".[5] The children were discussing their favorite records, and when Stevie Wonder's recording was mentioned, one of the children said, "he bad, huh". (IV, p. 24) The investigator said, "No, I think he's good." The child answered exasperated, "Oh you know how I mean." A final example illustrates how the speaker of standard English has difficulty hearing the phonological arrangements of BE. The children were discussing the Jackson Five and used this name 23 times in the text. The preliminary transcription shows that the term never was heard correctly.

Throughout the studies on Black English there is reference to the distinct intonation patterns, the paralinguistic effects, and different rhythms. Nvertheless, there is not yet a very clear understanding of just how these patterns are different and what elements make up the rhythm. The following text (with an ersatz phonetic transcription) illustrates some observations which we believe are crucial in understanding the distinctive features of Black English.

We were goin' to the beach, den when we got dere, we was on the rocks, den 1

I slipped down, we see . . . we seen a whole bunch o' muscle-dump, whn 2

I tryin' t' get one it wz ou' o' sight . . . uh turnin' aroun'. Den I ③
(?)

pulled it, den it came off, den w' I wa' tryin' t' get a look at it . . . 4
when

I dropped it. Den . . . I seen dis crab, he was dis . . . dis big, den I ⑤

tol' d' teacha t' come here, but she din' come, so den whn I wen' on th' 6
the

otha' side w' dese big ol' rocks, I seen dis . . . uh . . . bedda . . . 7
were/with (?) better (?)

cave, den when I called th' teacha' . . . when I called . . . uh . . . m . . . 8

uh somebody motha', den when ney came, it had somethin' white up in nere, 9
(there was)

an' it wz movin' thin' was goin' jus' like that. ⑩

(conversation: teacher, children--sea flowers, crab) 11

Den, den . . . when I seen nat . . . Dat thin' was goin' . . . he was goin' 12

fas' . . . n' . . . I wz running . . . n' dis liddle cr' . . . Dis liddle 13

thin' . . . dey was hoppin' an' flyin' aroun' . . . n' walkin' on th' rocks, 14

. . . mos'ly everybody got scared but cep . . . We din' run away from 'em, 15

den . . . when I was goin' to get s' . . . when I wz goin' in th' water . . . 16

(silent pulse-beat) look for mo some san'crabs I wen' deeper, den we 17
to (?)

we(re) prayin', den whn I wz tryin' t' git away from th' waves, I wz 18
playing

tryna go den I fall down, n' the water was comin' I ha' my han' 19
trying to have

out jus' like dat n' I wz goin' dis-a-way ⑳

The canonical form of the syllable in Black English is strongly a CV pattern. Previous studies have described the deletion of final consonants such as the stops and /l/ and /r/ and the reduction of final clusters such as /-st, -ft, -kt, -ld / to a single consonant. When a syllable does end in a consonant there is a tendency for the consonant to carry over and begin the next syllable. For example "get a look" is syllabically divided into /ge.ta.look /; "all the" /a.le / /al.le /; "cause I" /ka.zai /; "down there" /dau.ner /; "than that" /den.nat / or /de.nat /; "trying to" /trai.na /.[6] This strong tendency toward the CV structure influences sound change, as is heard in a phrase "was this, this big" (line 5 above text). The final -s of "was" makes the following /d / of /dis / "this" sound affricated and can be easily misheard as "was just dis big".

While the rhythm of SE (Standard English) has been described as stress-timed, BE should be described as syllable-timed,[7] with a fairly even beat: /◡/◡/◡/. Some stresses are stronger than others, and the strong ones have a tendency toward higher pitch in rhythmic cadences. Occasionally there occur two stresses continguously, for example in line 2 "a whóle búnch"; line 6 "t' cóme hére"; and line 7 "dese bíg ól' rócks". It is possible that these occur under certain syntactic and semantic circumstances, such as emphasis, quotation, and description. They usually occur in the final position of a rhythmic group.

The pulsating beat is maintained by what goes in between these strong and less-strong stresses in measured rhythm. Function words usually occur in these spots and these morphemes are articulated in various degrees. They may even be phonologically deleted and occur as "silence" but with the pulsating rhythm maintained. In the text above where the deletion seemed especially apparent, we have tried to indicate it by spelling. Thus, when morphemes such as "was, when, to, the, with" are phonologically diminished,we have spelled them, respectively: wz (line 3), whn (line 2) and w' (line 4) t' (line 3), th' (line 6), w' (line 7). For the interpretation of diminished or silent morphemes such as /w' /"when" (line 4) or "with" (line 7), we have depended upon native speakers and phonetic cues surrounding the continguous elements. When silence occurs, as in line 17, we have indicated it by ( ), and in this text have labelled it "silent pulse-beat". Partial deletion of a phrase may occur as in 'over to my house' /o' m' house/ (V, p. 5). Function words of more than one syllable are reduced in order to keep the beat rhythmical: didn't /din' /, except /sep/, supposed /pos/. Careful attention to this silent pulse-beat will show the difference between such items as the following where tense is involved. "He'll stop it" and "He stopped it" sound very much alike because of the deletion of final consonant /l/ and reduction of the consonant cluster /-pt/ to /-p/. The pulse-beat indicates the difference: /he ( ) stop it / and /he stop ( ) it /.

Other morphemes that occur in these rhythmic spots are: will ('ll) /ə/, could /ku/, of /ɔ/. These delated entities might be called "silent morphemes" but they should be considered in the grammar as valid; this is not grammatical deletion but phonological deletion with remaining pulse-beat. This might explain the apparently aberrant behavior of some morphemes which have baffled grammarians. For example, Loflin speaks of the optionality of the infinitival to. Schotta gives examples of the "absence" of the article.

In analyzing pulsation features, one must distinguish between these and hesitation phenomenon. In the case of the later, the rhythm is broken, however soon recovered. An example of a hesitation pause which wasn't recognized in our first rough transcription gave us a peculiar grammatical form: "he got blowed his head off..." (II p. 3). Listening carefully and checking with Smith revealed that there was a hesitation pause following the 'got', where the child changed his mind and started a new structure.

In a study of Black preaching style, Rosenberg (p. 76) maintains that the over-riding influence in the style is not language but rhythm. One can postulate that in general, the language of BE carries a high priority in rhythm and that even in the selection of words, rhythm takes precedence. The consequences on syntax are inevitable.

We do not consider this to be a complete nor a final statement on the suprasegmentals of BE. However, enough of these observations are indisputable, and the implications, for example, in learning to read should be of interest to educators. During the course of our investigation, one of the parents wanted to discuss the problem of "breathing", which, he believed, interfered with his children's learning to read. This was a naive, but extremely insightful observation on the phenomenon which we have discussed here, even though tentatively.

Regarding other phonological features, the children used structures described elsewhere in BE studies in varying degrees, depending upon their grasp of SE, and with some articulations which could be acknowledged as developmental. Some of the consonant substitutions in BE are considered developmental in SE speakers, e.g. the /f/and /v/ replacements of /0/and /d/: "mouth" /mouf/and "breathe"/breav/. Some forms, however, are not described in BE studies and these should probably be considered developmental even though most of these children are 9 to 12 years of age. For example, the difficulty with /r/: "electricity" /electwicity/, "rob" /wob /, "rather" /wather/. We also recorded a fluctuation between /l/and /r/: "Irene" /Ilene/, "playing" /prayin'/(line 18 of above text). It should be noted here that /l/and /r/are a common source of interference from languages where a phonological distinction is not made, as for example in West African Ewe.[8] Difficulty with some initial consonant clusters, not characteristic of BE, could be attributed to developmental: "throwed" /thowed/, "brought" /bought/"swim" /frwim/ (but note that /r/is involved in these also).

Some articulations could be considered Malapropisms, not related to phonological structre in a strict sense: "detective" /pertectif/(IV, p.12). "nodule" /novel/(IV, p.13).

Phonological features which affect morphology have been discussed in studies of BE, particularly with regard to forming plurals, possessives, and the tense system. Some analogical forms which are considered child language in SE are common in adult BE: "teeth" /teefes/, "children" /childrens/, "funnier" /more funny/, "the best car" /the goodest car/, "threw" /throwed /. Some verb forms which occur in BE are older forms from Early Modern English: clamb (climb), holp (help), and whup (whip). Some syntactical constructions might be remnants of earlier forms, e.g. the Biblical double subject, "Thy rod and thy staff, they comfort me." Note that this construction also occurs in West African Hausa, "The chief he came."[9]

Stewart discusses child language in relation to archaic forms among BE speakers and among children in the Appalachian region.[10] As he points out, this is only recently recognized because child language had hardly been recorded. Neither is there much information about white child language in those earlier plantation days when the white and Black children played together and white children were entertained by the tales of Uncle Remus and the like.[11] It is consistent with linguistic principles to recognize the possibility of linguistic exchange during these encounters. Before leaving the topic of child language and BE, it might be appropriate to mention a suggested connection between baby talk and pidgin English, where the sailors might have "talked down" condescendingly to the "ignorant savages".

Grammatical analysis is complex and lengthy, and we were limited by time and data in our study. Therefore we have chosen to highlight Noun Phrases by showing the great variety and types which we found in the six tapes only. It is possible that other types could be found in a more extensive study; it is also possible that some of these could turn out to be unique or slips of the tongue.

Noun Phrases

Simple noun phrases

a solid hit
the newest routine
all the girls
all those rocks
all these white mens
some little fishes
a real little pig
a old drunk man
a steel natural comb
your little skinny head
that shrimped up chest
double teaming

Noun + noun

sea flower
blood brother
soul stuff
a vampire bite
my pellet gun
my little tent home
that big old clown head
black eye pea juice

Pronoun substitution

a little one
the biggest one in class
one little one and another big one

Appositive

a shotgun, a double-barrel
that girl, this pretty girl
we, all of us

Noun phrases with prepositional phrases

a whole bunch of souls
a little bit of beer
kind of little beads
tomorrow in the morning time
that black girl from Africa
that girl from blackest Africa
the goodest car in the world
ugly boys with marks on their face
this casket knife with a mummy on it
a trip you from (a trip away from you) (developmental)
all of them
the name of it

Possessive modifiers

the worlds greatest champion in the world
his daughter birthday party
that other monster's mouth
all Clay and Frazier's money what they won

Relative clauses

that man who got bit
this lady we seen
a mountain what you could run down and you can't even stop
a what you call it
my sister next to the biggest
a ape coming from Tarzan
that boy named Billy
Link tied on the back
the heart like worms
only little kit about my size

Our final comment on linguistic structures has to do with clause and sentence complexity. We did not try to do analysis of these structures, but did a statistical survey to make some preliminary comparisons with the language of children in similar age groups.

In analyzing structural complexity in the writing of school children and adults, Hunt used as a measuring device the T-unit or "Minimal terminable unit". He defines it as one main clause plus any subordinate clause or nonclausal structure that is attached to or embedded in it.[12]

O'Donnell, Griffin and Norris used the T-unit in their analysis of the syntax of kindergarten and elementary school children. Their investigation deals with speech and writing.

The clauses of Tape II (first half) were analyzed using the Hunt method. The results were compared to the third grade norms of the O'Donnell study:

	Words per T-unit		Sentence-combining transformations per T-unit: Rate of occurrence per 100 T-units
	Range	mean	Mean
O'Donnell 3rd	7.4-10.8	8.73	1.01
MV 3rd grade		7.27	0.86

Considering that in the O'Donnell study the discussion topic was somewhat controlled since the children retold stories seen on film (with no sound track) and that in our study extemporaneous speech was recorded, the results seem to be similar. The mean figure of words par

T-unit of utterances are well within the range of words per T-unit given by O'Donnell, et al, in their study. No individual ranges were measured in our study.

A difficulty in analyzing speech is the matter of code-switching. In the school setting where the tapes werde made the children were perhaps more aware that their speech should be "proper". Nevertheless the recorded texts evidenced many of the features of oral narrative which scholars have discussed in various genre, for example, Rosenberg, in his study of the Black preaching style; Dorson, in Negro folktales; Abrahams, Kernan, Kochman, Labov, et al concerning verbal art. Even at this young age, the children were experimenting, perhaps unwittingly, with various speech styles and forms.

One of the most significant things we noticed was the increase of paralinguistic effects when the children moved into casual style[13] and talked about things dear to their hearts, such as the Clay-Frazier fight, vampires, and girls (the boy speakers). A trait often noticed about young white males is that when they tell a story their voices are dull and expressionless. On the contrary the Black males in this study opened up all the stops when they got interested in narrating and they produced a wide variety of voice quality, expressive pitch differences, and noises.
Dorson has given, perhaps, the fullest description of paralinguistic and kinesic effects that can accompany Black narrative, and even he has not completed the description of the exceedingly rich repertoire of possibilities. His chapter on the art of Negro storytelling could easily be applied to the children's narrative in such stories as the Monsters, King Kong

(Tape I), the vampire, the rabbit party (Tape II), the Clay-Frazier fight, the Mod Squad, soul (Tape IV), okra, a back yard tent-home (Tape V). The following paralinguistic effects are all recorded in these texts: alveolar trill, bilabial trill, gasp, sigh (communicative), humming, singing la de la, snapping fingers, long consonants for effect /usssss /, vowel change for effect, additional syllable for effect "vampire" /vam.pai.ah /, chanting, laryngealization, falsetto, whispered, tremolo, emphatic stress, sudden extra-loud stress, extra-high pitch, extra-soft quality, gravelly voice, deep voice, breathy voice, quivering voice, spooky voice, mocking voice, bragging voice, threatening voice, speech mimicry (baby talk, character representation), various qualities of laughter, giggles, snickers, intonation substitute for words, "I don't know" /mmmmm /, and wide variety of noises, rhythmic sounds, and sound effects. These features were particularly noted in quotation passages (Kernan calls this "marking" (pp. 70, 137-143).

A description of a Black sermon would include the following (among other things): begins in normal prose style; builds up a crescendo of delivery, with marked intensity, higher pitch, and vocal effects such as tremolo; elicits significant audience response. The same description (among other things) could be given for the vampire story which the boys recorded on Tape II.

When the children were narrating, at times it was difficult to tell which child was talking when we played back the tapes. (For example, the Clay-Frazier discussion, IV, pp. 7-8). We are calling this "conversation cooperation"; different speakers fill in with the consent of the first speaker. It is almost as though the speakers were forwarded in their narration by the interjection of the listeners-faintly reminiscent of the "call and response" which the preacher and audience participate in during the sermon. This filling in by others was perfectly acceptable to the speaker-almost expected. A different athmosphere in this give-and-take response can be noted in the agonistic exchange that occurs in Playing the Dozens.

Repetition of a clause connector is common throughout the texts. It usually takes the form "Then..." or "And then..." This is not unusual in oral literature described elsewhere.[14]

One child used an introducer "Because" to begin her narrative: " 'Cause when we was goin' on the rock..." (Field Trip, p. 4). As far as we know, this is not described in discussions on BE, but Smith reminded us that it is a common introducer among Black people who feel that every time they are stopped by the authority they have to explain.

Repetition occurs often in the texts. There are precedents in Black verbal art for this repetitive, adding style, for example, in the chanted sermon and in hymn singing, where the leader gives a line which the congregation then sings.[15]

Creative constructions and metaphors occur in the children's speech. On the beach trip a youngster saw piles of muscles and called it a muscle-dump (line 2 of above text). In discussing boxing, the boys described one unfortunate as "pregnant in his lips" (II p. 18). They carry on the tradition of the Black "bold spirit for word usage" as Dorson expressed it (p. 23).

In the language project started last year at the Monte Vista school[1] the teachers have introduced the terms "everyday talk" and "school talk".[16] The children have understood and accepted this concept remarkably well. One little girl, while working with various language forms, told a teacher, "I'm gonna dress up this sentence for you." At the beginning of one of the taping sessions, the investigator wanted to clarify which variety of language he wanted to record, "Do you think I'm looking for school talk or everyday talk ? " The boys answered, "...everydáy talk!" and then one little boy, with a twinkle in his eye, said, "I talk év'ry dáy!"

Footnotes

[1] Six tapes were recorded and preliminary transcriptions were made by the students in a graduate seminar conducted at California State College at Fullerton: Fernando Canedo, Laila Fiege-Kollmann, Michael Kohne, Mary Sanchez, Ingeborg Stotz, Sandra Ward, Katherine Watson, and Rudolph Wilkins. The tapes were recorded in collaboration with the teachers of the Language Development Center at the Monte Vista Elementary School in Santa Ana, California. The children were in grades one to three, but most of the children recorded were 9 to 12 years old. After the seminar ended, Fiege-Kollmann continued with the analysis of the tapes and Smith, doctoral candidate at the University of California at Irvine, who is conversant in Black English, corrected the transcriptions and interpreted the difficult passages.

[2] See also Houston's observations, (1969), pp. 601-602.

[3] The figures given in parenthesis refer to the transcriptions made of the tapes. The Roman Numeral refers to the tape and the page number to the typescript.

[4] jug - See Oxford English Dictionary, where references date from 1377 and 1393, as used in the tilt or tournament, to prick or to spur (horse). See also F.G. Cassidy and R.B. LePage, Dictionary of Jamaican English, Cambridge University Press, 1967: juk - to prick, pierce, ... stab - usually done suddenly.

[5] See Labov, et al. 1968, Vol II, pp. 36, 44-45, 60, 131; Major, pp. 13-14; Abrahams, p. 262.

[6] Cf. fast speech SE (Standard English) forms: gonna<going to, and wanna<want to. However, BE lends itself more to such syllable reduction to accomodate the rhythm pattern.

[7] The English of Nigerian speakers is also described as syllable-timed, in John Spencer, The English language in West Africa, London: Longman, 1971, pp. 42 and 109.

[8] Spencer, p. 158.

[9] Spencer, p. 132, And see Riley Smith for discussion of the double subject.

[10] Steward, pp. 365-366, in Language and Poverty. Some time ago I recorded a pre-school child from Tangier Island, off the coast of Virginia, who showed the same characteristics.

[11] The first picture in Harris' tales of Uncle Remus shows a little white child in the hut of the old Negro storyteller.

[12] Hunt, p. 9.

[13] Labov says,(1969), pp. 730-731, fn. 15, "The criteria for determining the shift to casual style are contrastive changes in 'channel cues'--- pitch, volume, tempo, and rate of breathing (which includes laughter). See also Kernan with regard to paralinguistic and kinesic features which signal a change in meaning and/or otherwise communicate, pp. 70, 126, 132, 137-143.

[14] In a description of the Hausa language ofWest Africa, Abraham notes that in a narrative, there is often a long sequence of "then" clauses: "they asked

us and then we said we agreed: so they replied that...then they..." This was also a style common on Old English texts, for example, "and after two months fought Athered King and Alfred his brother against the army at Merton, and they were in two bands, and they both were put to flight, and far on in the day..." Robert A. Peters, A linguistic history of English, 1968, pp. 236-237. For other examples from African languages, see Taylor.

[15] Rosenberg, pp. 16, 252. He gives other examples from oral epics, pp. 112 ff. I remember recording a similar type of repetitive, adding style in a South American Indian language from a well-known storyteller.

[16] The terms "everyday talk" and "school talk" are used in the curriculum, Psycholinguistics Oral Language Program: A Bi-dialectal Approach: Experimental Edition, and Teacher's Manual, with 8 accompanying readers, Chicago Public Schools, 1968-1969.

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The Development of Semantic Categories In Spanish-English and Navajo-English Bilingual Children[1]

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The Development of Semantic Categories
In Spanish-English and Navajo-English Bilingual Children

As children acquire language, they gain control over an immensely complicated set of systems, and in acquiring the meaning or semantic system of a language, children come to recognize the many subtle differences in meanings of words and word relationships. For example, a child gradually realizes that not all motor vehicles are cars; some are pickups and some are trucks. As he gains in his perceptual capacity, his language reflects this increasing ability to differentiate and categorize.[3] However, a meaning system of a language is considerably more complex than the labels of objects. The child must come to realize that _if_ and _unless_ are not the same in meaning,[4] and that _more than_ and _less than_ are also not synonymous.[5] He must also acquire the subtle difference between expressions that are synonymous in one context but not in another, such as _return_ and _take back_. It is permissible to either return or take back a book to the library, but it is not permissible to either return or take back a friend to the zoo.[6] The child further must realize that expressions of equality will be affected differently by negation. _Equal to_ and _as many as_ are quite similar in meaning, but _not equal to_ and _not as many as_ are obviously different.

Many of these subtleties of the meaning system of a language appear to be forbiddingly complex; nonetheless, almost all children eventually gain adequate control over the semantic level of their language. The current controversy over semantics in linguistic theory provides considerable motivation for investigation of this element, especially in a cross-language situation. Different languages exhibit their own particular semantic systems, and study of how the systems differ can throw light on what is universal to language and what is specific to a single language.

The interesting question and subject of this paper is whether children who learn a second language--English in this case--will develop the same semantic system as monolingual children or whether their semantic system will be different because of linguistic or cultural interference. A second, closely related question is whether the bilingual child develops separate meaning systems for his two languages or whether he operates by means of a single system.

This paper will present evidence from a study investigating these questions by comparing the relative difficulty of certain semantic constructions in comprehension tests for two groups of young bilingual children: Spanish-English bilinguals and Navajo-English bilinguals. A group of English monolingual children provide a basis for comparison. These two groups of bilingual children were chosen because Spanish and English are semantically similar languages, and Navajo and English are semantically dissimilar languages in the area being investigated.

In this study ten categories of numeric comparison (five positive and five negative) are used which express the three basic concepts of superiority of number, equality of number, and inferiority of number plus their denials. Each of these categories includes three syntactially different sentences, which are parallel in each category except that half the categories are negative. In this way syntax can be investigated as well as semantics. The sentences were translated into Spanish and Navajo when the categories were semantically equivalent, and each bilingual child was tested for comprehension of the thirty sentences in English and thirty sentences in his other language for accuracy and latency (response time). This methodology is an adaptation of the one developed by Kennedy.[7]

The following two tables illustrate the ten semantic categories in English used in this study and the three syntactic types established for each category.

Table 1

SEMANTIC CATEGORIES OF NUMERIC COMPARISONS

Semantic Category	Symbol	Linguistic Construction
1 Superiority	$>$	more than
2 Denial of Superiority	$\ngtr$	not more than
3 Inferiority	$<$	less than
4 Denial of Inferiority	$\nless$	not less than
5 Positive Equality	$=^{+}$	as many as
6 Denial of Positive Equality	$\neq^{+}$	not as many as
7 Negative Equality	$=^{-}$	as few as
8 Denial of Negative Equality	$\neq^{-}$	not as few as
9 Neutral Equality	$=^{o}$	equal to
10 Denial of Neutral Equality	$\neq^{o}$	not equal to

Table 2

SYNTACTIC TYPES WITHIN SEMANTIC CATEGORIES

1 There are (not) more X than Y.

2 There is (not) a larger number of X than Y.

3 The number of X is (not) larger than the number of Y.

The translations of the sentences into Spanish and Navajo were done by native speakers and were verified by back translations. The Spanish paralleled the English in meaning and syntactic types and reflected the language of northern New Mexico. Two informants were used for the Spanish and both agreed that the meaning system of the ten numeric comparisons was the same as it would be for English. For example, the denial of positive equality (not as many as) and the Spanish equivalent (no tantos como) both unambiguously mean numeric inferiority of the first noun mentioned in relation to the second. For the Navajo version three informants were used plus five back translations. The first difficulty was the absence of the desired syntactic variety. One informant provided different types but only through use of the English word number; two informants agreed fairly well on the single syntactic type that was used after certain exceptions had been resolved. The Navajo version was left with only one syntactic type rather than the three in English and Spanish. This is not to claim that the pattern used is the only one available; the claim is that the pattern was readily understood for the back translations and seemed compatible with Young and Morgan's explanation of the comparative construction in Navajo.[8]

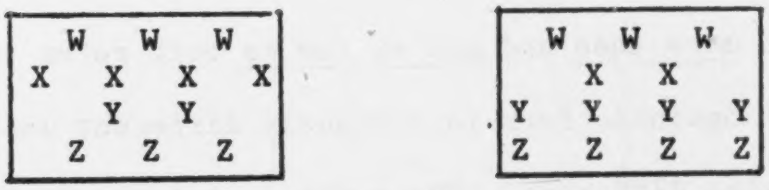
The concern over syntactic variety led to a more basic problem--directness of meaning. The relationship of numeric superiority can be expressed directly in English through the sentence There are more X than Y. The relationship can also be indirectly expressed by saying There are many X; there are few Y. Navajo informants produced comparative sentences that could be literally translated to parallel the indirect English expression just mentioned. They also produced constructions parallel to the English direct comparison, lending some support to a parallelism between the languages in directness of meaning for this category. The real concern came with the English construction There are as many X as Y. The Navajo equivalent would be parallel to an English construction The X and the Y are equal and they are many. A similar situation exists for constructions of as few as. The absence in Navajo of direct comparatives for equality which are built from adjectives of superiority and inferiority suggest that these categories (positive and negative equality) do not "directly" exist in Navajo. The clue comes when these expressions are modified by negation and they do not produce a parallel meaning. In English not as many as is not simple denial and unambiguously means less than. Negating the Navajo counterpart results in something like The X and Y are not equal and they are many. Four categories then could not be "directly" translated into Navajo and maintain a meaning system parallel with English and were omitted from the Navajo version.

The subjects were first and fourth graders recognized as bilinguals by their teachers and freely admitting to be so. All subjects were screened for knowledge of the lexical items used in the testing and general knowledge of the types of constructions in both languages. Subjects were not used without successfully completing the screening. The thirty sentences in English and the thirty in the other language were randomized and presented in blocks of ten sentences alternating between languages by blocks. The subjects were randomly assigned as to which language and which block of sentences they would begin with. They listened to tapes of the sentences which were recorded by native speakers and selected one of two pictures (rear-projected on two small screens in front of the subject) as a correct illustration of the meaning. In addition to accuracy, a latency measure was obtained. Figure 1 presents the type of illustrations used with an accompanying sample sentence. The letters represent drawings of common objects selected for their cultural neutrality. The relative positions of the compared objects were controlled experimentally.

Figure 1

REPRESENTATIVE ILLUSTRATION FOR TESTING

"There are more Z than W."



From this testing came accuracy and latency scores for each semantic category. Each language group established a pattern of the relative difficulty of the ten semantic categories in English and these patterns were then contrasted without any quantitative comparisons. The bilingual's performance in his first language then provided an approach for explaining any differences. It would be expected that the Spanish-English group would parallel the English monolinguals but that the Navajo-English group would deviate from the pattern because of language differences.

The idea of patterns of difficulty of the ten semantic categories presupposes meaningful differences among them. These ten categories express the three basic concepts of superiority, equality, and inferiority plus their denials in subtly different ways. The concept of superiority can be expressed by more than and it can also be expressed by not as few as. Similarly, inferiority can be expressed by less than and not as many as. Equality can be expressed by equal to, as many as, and as few as. Of these last three only equal to can be denied simply. The previous examples show that negation of as many as and as few as unambiguously represent expressions of inferiority and superiority respectively. Denial of more than and less than is simple and direct and means no more than just that. In other words, not more than can be factually illustrated by either equality or inferiority. Not less than offers the two possibilities of equality and superiority. When these categories refer to the same basic concept, the point is that there is also a difference in semantic structure and meaning. For example more than and not as few as both refer to the same basic concept. The linguistic form is obviously different and the semantic construction is also different. The semantic information contained in more than is less complex than the semantic information in not as few as.

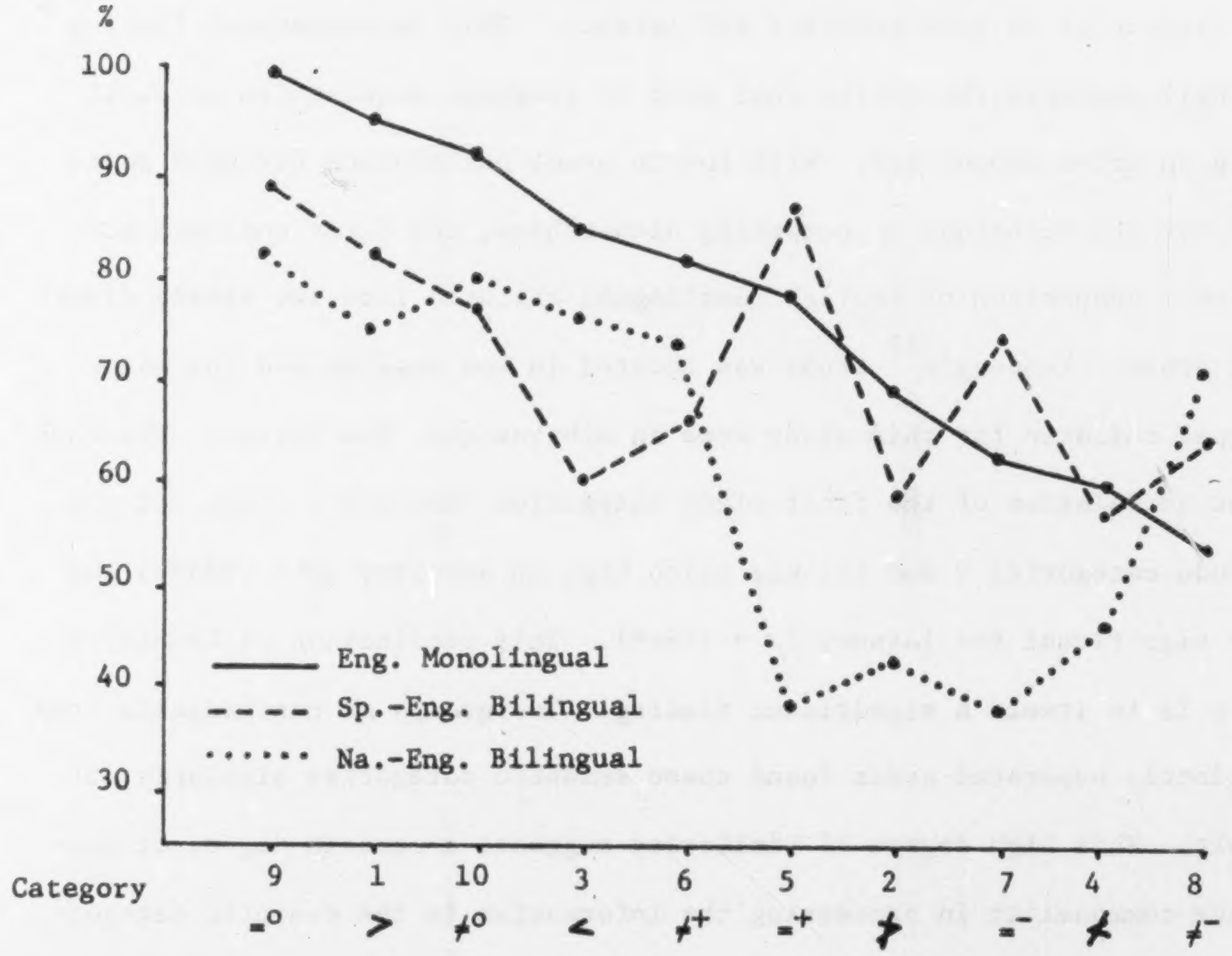
The semantic theory of Katz & Fodor,[9] Katz,[10] and Bierwisch[11] offer an approach to explaining this by means of semantic features, which are considered universal for languages (although any particular combination of features is not). By means of features, each of the semantic structures for the ten categories can be represented and these features can also provide a way to account for the hierarchy of difficulty of these categories (The use of features and a theory of semantic markedness will be dealt with later).

The method of study that is used for this paper determines the hierarchy of difficulty of the ten semantic categories in English for each language group and then compares the hierarchies. The first significant finding is that first grade children do not sufficiently differentiate the categories to be able to establish a true hierarchy. There was little, if any, significant difference among the ten categories for first grade children; scores were generally low indicating that the younger children of all groups, regardless of language, were not comprehending the categories much beyond pure chance. However, the fourth graders sharply differentiated the categories on both accuracy and latency. This developmental finding strongly supports the notion that much of language acquisition is still going on after school age. With fourth grade performance strongly suitable for the technique of comparing hierarchies, the first analysis permitted a comparison of English monolingual children from two widely divergent areas. Kennedy's[12] study was located in Los Angeles and the monolingual children for this study were in Albuquerque, New Mexico. The rank order correlation of the first eight categories (Kennedy's study did not include categories 9 and 10) was quite high in accuracy (ρ = .958**) and also significant for latency (ρ = .786*). This replication of Kennedy's study is in itself a significant finding. Two groups of monolinguals from distinctly separated areas found these semantic categories similarly difficult. This high degree of similarity suggests a certain degree of cognitive commonality in processing the information in the semantic categories. Certainly this finding supports the use of the English monolingual group as a base for comparing the two bilingual groups.

For the cross-language emphasis, the primary finding was that both groups of bilinguals established different difficulty patterns than the monolingual group. Figure 2 illustrates the relative pattern for all three groups in accuracy.

Figure 2

CATEGORY HIERARCHIES IN ENGLISH ACCURACY



It is noticeable from this comparison that much of the deviation comes from categories 5, 7, and 8. For the Spanish-English group, positiva equality, negative equality, and denial of negative equality (categories 5, 7, and 8) are relatively easier than the other categories in comparison to the English monolinguals. If one supports the notion of identical semantic structures for English and Spanish, this relative preference for these three categories must be explained on the basis of familiarity and preference rather than inherent complexity. This indicates that it is not only necessary to investigate language performance linguistically, but it is also necessary to investigate purely psychological factors as well.

For the Navajo group it was expected that positive and negative equality would be relatively more difficult because of the absence of these categories in Navajo. This prediction is upheld by the data. The interesting point is how negating these categories removes the relative difficulty. Generally negating a difficult category would be expected to increase its difficulty. However, if the sentence *There are as many X as Y* is being erroneously comprehended as superiority of X over Y because *many* is connected to X alone, then denial of the many removes the source of error. The sentence is interpreted as *There are not many X in relation to the number of Y*. Interpreting denial of positive and negative equality in this manner is much the same as what the deep structure of the construction would be. Roughly the deep structure of negative equality would be *There are few X/ there are few Y*. Negating the structure produces *NEG + There are few X/ there are few Y*. The first structure uses *few* (or *many*) for equality while Navajo would express the equality and then add the number sense. The denial, however, is similar to the Navajo which roughly translates *These X are not few/ these Y are few*. The Navajo child is used to a category that is expressed seemingly by both a positive and a negative. He puts the English sentences into this system and makes errors in comprehension. Navajo does not have positive equality that is built from *There are many X/ there are many Y*. This system is used only for meanings of superiority or inferiority. These data then would seem to suggest that the difference between the English and Navajo semantic systems is at the base of the Navajo-English bilingual's performance.

The latency measure (using right and wrong responses) generally supports the accuracy measure for the Spanish-English group as indicated by a significant rank order correlation (ρ = .663*). However, the latency measure for the Navajo does not even differentiate the categories unless only the correct responses are used. Little difference exists for the Spanish-English group or the English group between latency of all responses and the latency of the correct-only responses. Time is not a significant variable for the Navajo unless he has some confidence in his understanding of the categories. The main finding from latency is that all three groups are quite similar in response time (correct-only responses for the Navajo) regardless of differences in accuracy. Latency seems to be a measure of confidence which is quite similar for all groups.

Examination of the three syntactic types in English reveals no particular preference or ease in comprehension of one type over another for the Spanish-English group or the monolingual group. However, the second syntactic type (There is a larger number of X than Y) was significant for the Navajo children. This unexpected showing is best accounted for by noting that the order of the comparison device and the nouns being compared is opposite from the order of the Navajo sentence where the comparison is last.

To answer the question of whether the bilingual child is operating with one or two meaning systems for his two languages, the hierarchies of difficulty from the child's two languages can be compared. For the Spanish-English group all ten categories can be used while only the six mutual categories can be used for the Navajo-English group. The rank order correlations for accuracy (ρ = .821** for the Spanish-English group and ρ = .943** for the Navajo-English group) strongly support the presence of a single meaning system at this level of development. This suggests a certain universality of semantics and even of some of the semantic categories in language comprehension. The latency index is similar (ρ = .810**) for the Spanish-English group, but no correlation is possible with the

Navajo group because correct-only responses are contributing scores in English, but total responses are in Navajo.

It seems apparent from the data that semantic categories are definitely significant factors in comprehension for all groups. These categories are sufficiently powerful in determining comprehension that absence of them in one language greatly increases their difficulty in another. The semantic system of one language forces interpretation of another language accordingly. The bilingual is eventually confronted with the task of acquiring a new semantic system to express the same basic meanings. However, at this state of development he definitely appears to be functioning with a single meaning system. Furthermore, presence of identical semantic categories in two languages does not guarantee the same hierarchy of difficulty as for the monolingual of the target language. Other factors are needed to explain these differences, such as preference and familiarity.

These results from analyzing comprehension by means of semantic categories can be formalized by extending a semantic theory based on features into a theory of semantic markedness on the same principle that Chomsky and Halle[13] use with phonological features. The simple presence or absence of a feature fails to reveal whether that feature is intrinsic or natural to the meaning, hence not adding to its complexity. Clark[14] establishes a principle of lexical marking to account for the extra difficulty of the negative half of a pair of polar adjectives. More is not as complex in meaning than is less. Clark uses features within a binary system to formalize this difference. Using Clark's basic principles but formalizing the use of features into markedness theory can account for this difference more realistically than the binary system. Both more and less contain the feature of "polarity," indicating their existence as polar pairs; however, more is unmarked or natural as to "polarity" and less is marked. This captures the asymmetrical nature of polar adjectives and formalizes that less exists in contrast to more, the basic member of the pair. For other examples, equal to can be differentiated from both as many as and as few as by being unmarked for a feature "equative" while both the positive and negative equality would be marked for "equative," indicating the unnaturalness of their use in expressions of equality. As many as would further be differentiated from as few as by the previously mentioned feature "polarity" which is unmarked for as many as and marked for as few as. The principle determining complexity is that only unmarked features do not add to the complexity of meaning.

Each of the ten semantic categories can be represented with features according to markedness theory and a hierarchy of difficulty predicted on the basis of the number of marked features. The English monolingual's hierarchy highly correlates in accuracy with the one predicted by the theory (ρ = .870**). Also important is that this theoretical representation of semantic categories can be used to represent the categories from other languages. Positive and negative equality are marked for "equative" while neutral equality is unmarked for the same feature as are the Navajo categories of equality.

Although this theoretical representation is sketchily presented here, it is not difficult to imagine its usefulness in semantic analysis. Semantics, like phonology, may well be representable from a universal set of features when formalized within a theory of markedness.

In review this study has shown that bilingual children do not parallel monolingual children in patterns of difficulty of semantic categories. Categories not present in their first language are appreciably more diffi-

cult in relation to the other categories than for monolingual children. Even when categories are present in the child's first language, factors such as preference and familiarity are also significant. Semantic categories do appear to be important determiners of comprehension especially when compared to syntax. A theory of semantic markedness can appropriately account for the relative difficulty of different categories and be quite suitable for use across language boundaries.

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BILINGUALISM, MONOLINGUALISM, AND CODE ACQUISITION

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BILINGUALISM, MONOLINGUALISM AND CODE ACQUISITION[1]

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On a snowy night in Old Québec a couple of years ago, a number of friends gathered for coffee and conversation. Two of them happened to be writing books. One, fluently bilingual, complained, "It is really terrible. I search my mind for a good synonym, and when one pops up, it's just as likely to be in the wrong language. A damn nuisance!" His monolingual friend replied, "I know just what you mean. My book's supposed to be for the layman, and the technical jargon keeps trying to force its way in."

Two similar experiences? But one man spoke two languages, alternately and effectively, and the other spoke one. Yet, their comments suggest that processes of storage and retrieval of lexical material may be alike for monolinguals and bilinguals. Other stories could be cited at length to illustrate a common core of cognitive-linguistic experience. The point I wish to make is that bilingualism and monolingualism are not unrelated entities, each demanding a separate explanation, but are realizations of a single phenomenon, in which varying aspects are observable in different degrees. As such, they should be incorporated into a unitary theoretical framework.

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Portents and Precedents

Weinreich (1953, p.1-2) commented on the artificiality of the distinction between bilingualism and monolingualism in his study of the interference mechanisms resulting from language contact within a single individual. In this context, he noted that

> ....it is immaterial whether the two systems are 'languages', 'dialects of the same languages', or 'varieties of the same dialect', ...the mechanisms of interference would appear to be the same whether the contact is between Chinese and French or between two subvarieties of English used by neighbouring families. And while control of two such similar systems is not ordinarily called bilingualism, the term in its technical sense might easily be extended to cover these cases of contact as well.

Recent work by anthropologists (e.g., Gumperz, 1964, 1967; Hymes, 1967) and sociologists (e.g., Labov, 1966) makes it clear that most members of communities control several subvarieties of their lnaguage. According to Hymes (1967, P. 9),

X an

> No normal person, and no normal community is limited in repertoire to a single variety of code, to an unchanging monotony which would preclude the possibility of indicating respect, insolence, mock-seriousness, humor, role-distance, etc. by switching from one variety to another.

In Weinreich's "technical sense", then, all people are at least bilingual, and most are multilingual. Bilingualism in its traditional sense may thus be seen as an obvious case of a general ability to store and switch among linguistic codes.

Coming to Terms with Terms

Let me now try to clean up my own language. Henceforth, code will denote any linguistic system used for interpersonal communication. As such, its various levels of structure - semantic, grammatical, lexical, and phonological - interact in a rule-governed manner. Languages, dialects, and sub-varieties of dialects are thus all examples of codes. Further, a speaker's substitution of one language for another, or one dialect for another, or one subvariety of a dialect for another, are all examples of code-switching. Insofar as Hymes' premise holds, this is equivalent to saying that code-switching is a normal part of all linguistic activity.

At this point it is unclear what, or even if, new terms should be introduced. If "bilingual" and "monolingual" really symbolize some insight into the processes of linguistic functioning, then they should be retained for use in a psychological theory of code-switching. However, it is not at all clear that distinguishing the speaker who controls two languages from the speaker who controls two dialects or subvarieties of dialects leads to psychologically meaningful insights. Regarding the "complexity of switch"[2], for example, Gumperz (1967, p. 54) suggests that language-to-language switching is not necessarily more complex than subvariety-to-subvariety switching. Gumperz' observations were carried out in situations in which the language switches (Hindi to Punjabi and Kannada to Marathi) involved only the substitution of morphemes. Grammatical structures remained unchanged.

> If we contrast this form of bilingual communication with the rather complex selection among phonological, syntactic and lexical variables, which Labov's recent work in New York has revealed (1966), it seems clear that there are at least some circumstances where bilingualism may require less skills than the normal process of communication in some monolingual societies.

Summarizing the argument so far, I question the utility of the bilingual/monolingual distinction in the development of a psychological theory of code-switching. If, on further investigation, these terms are shown to be arbitrary and empty of meaning, they should be discarded.

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[2] A hypothetical dimension. Clearly both psychological and linguistic factors would have to be considered in any measure of complexity. The extent to which it would turn out to be a single dimension is unknown.

The Acquisition of Codes

To suggest that the bilingual/monolingual distinction is an arbitrary one is to imply that learning two or more languages does not differ in any significant way from learning one language: both involve the acquisition of two or more codes. One advantage of studying the child learning two languages simultaneously is that at least some aspects of linguistic development are more easily observed. For example, studies of such children (e.g., Imedadze, 1966; Leopold, 1939-49) have revealed that they first pass through a 'mixed-speech' stage wherein sentences include elements of both languages. It would be difficult to find a better demonstration of the fact that language acquisition and sentence construction are not merely realizations of an imitative process, but of a constructive, creative one. Moreover, although this initial stage of code mixing has been identified in the case of the child learning subvarieties of a language (Weeks, 1970), instances of mixing are so clearly observable in the case of the child learning two languages, that statements about them can be made with greater confidence.

The initial mixed-code stage must necessarily be followed by a period of differentiation. In the case of a child learning several subvarieties of a language, it hardly seems plausible that entirely separate sets of rules, one to generate each code would be developed (see Figure 1). Such an organization seems quite inefficient merely from the point of view of memory storage. More efficient would be a common core of rules with those specific to a particular code tagged as such through a process of differentiation (see Figure 2).

In Figures 1 and 2 the codes shown as output each require the operation of rules C and D. The model represented by Figure 1 demands that rules C and D be stored in three different locations. In the model represented by Figure 2, however, rules C and D each need only be stored in one location. In the first model, each rule must be marked according to its code. In the second model, only those rules specific to a particular code need to be tagged.

The separate storage model suggests that a rule in common to the codes being learned may be acquired separately for each code. Rules not in common will immediately be tagged according to their respective code. In other words, each code is learned independently of the other. The common storage model implies that a rule in common to the codes being learned will be acquired only once. Further, a rule not in common to the codes may first be considered as a rule in common, later to be tagged as appropriate to a particular code through a process of differentiation.

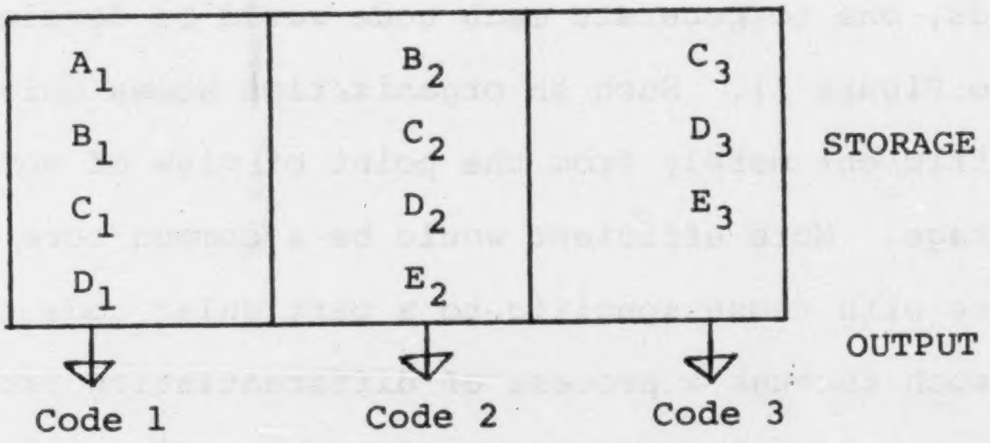
A_1
B_1
C_1
D_1
B_2
C_2
D_2
E_2
C_3
D_3
E_3
STORAGE
OUTPUT
Code 1
Code 2
Code 3

Figure 1

Separate Storage

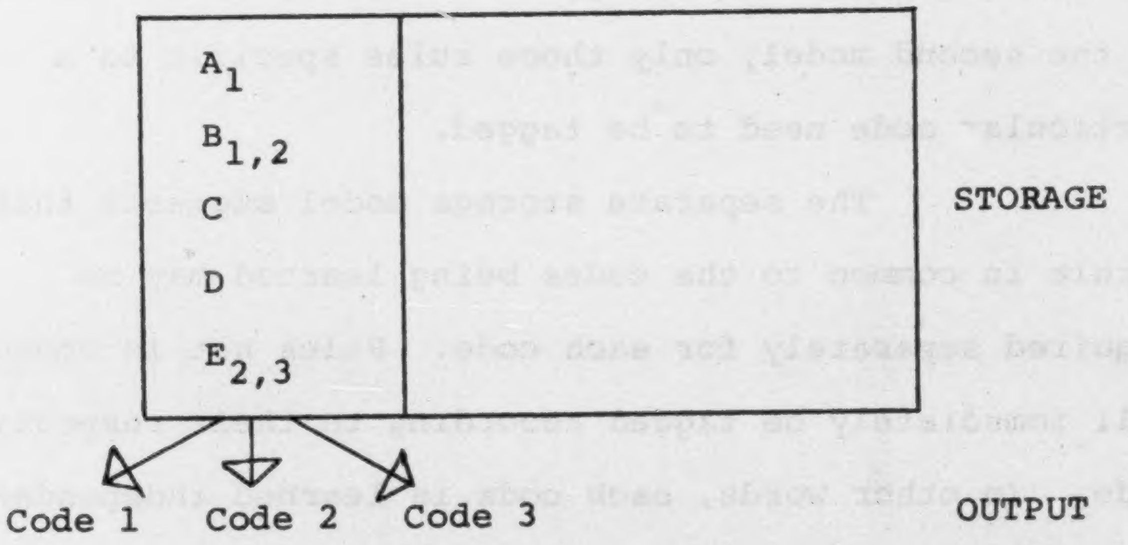
A_1
$B_{1,2}$
C
D
$E_{2,3}$
STORAGE
OUTPUT
Code 1
Code 2
Code 3

Figure 2

Common Storage

The Learning of Yes/No Questions

Consider the child whose linguistic environment includes both French and English. Consider further the number of alternatives he has available just for asking a yes/no question. Suppose, for example, that he wants to ask his mother if his friend is coming over. He could say:

1. He's coming?
2. Il vient?
3. Est-ce qu'il vient?
4. Il vient tu?
5. He's coming, eh?
6. Il vient, eh?
7. He's coming, isn't he?
8. Is he coming?
9. Vient-il?

There are two points to note about the questions listed above. First, they represent structures that might be heard from speakers of some Canadian dialects of French and English. Therefore, the question "Il vient, n'est-ce pas?"has been omitted because although it is common in some French dialects, it is rarely used by French Canadians. Throughout the remainder of this paper, any mention of French and English refers to Canadian dialects.

Secondly, there are other ways the child could express the same question. For example, he might choose to use his friend's name. With the exception of question 9, this would not involve any structural change: the name would occur wherever the pronoun now is. Question 9, however, would become, "Jean vient-il?".

The questions listed above exemplify the various means available for signalling the asking of a yes/no question in French or English. A formal characterization of these devices can be found elsewhere (e.g., Klima and Bellugi, 1966; Langacker, 1965; Swain, in preparation). Space forbids it here. Generally speaking, however, it can be signalled by:

(1) an intonation contour which rises and stays high to the end of the sentence (questions 1 and 2).

(2) the morphemic sequence "est-ce-que" located at the beginning of the sentence (question 3).

(3) the morpheme "tu" located after the first verbal element in the sentence (question 4).[3]

(4) the morpheme "eh" located at the end of the sentence (questions 5 and 6).

(5) the complex tag[4] (question 7).

(6) a particular ordering of subject and verb constituents (questions 8 and 9).

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[3] Only one child in our sample, Michael regularly heard the dialect in which tu is used as a question morpheme.

[4] This is a complex structure dependent in its form on the main part of the sentence. As no examples of complex question tags were found in our data, further mention of it is omitted.

What does the child do who is faced with the task of learning this set of alternatives? In order to answer this question, speech samples of four children who had heard English and French from birth were recorded over a period of six to eight months. At the time when data collection began, the ages of the children were two years, ten months (2.10); three years, two months (3.2); three years, eight months (3.8); and four years (4.0). Therefore, the acquisition sequence we will see is not that of one child followed over two years, but is instead a developmental sequence inferred from the combined data of four children.

A detailed statement of the results is reported elsewhere (Swain, in preparation). Here, I will only attempt to summarize the basic findings.

At the time the recording sessions began the youngest child, Monica, was already using two devices to signal yes/no questions: rising intonation and the morpheme "eh". Her questions included Café est hot?, Ca va commencer?, Tu veux la cigarette?, You go home?, and Ca va don't fall, eh?. Interestingly, these two devices are those the two languages have exactly in common.

When the recording sessions began, the second youngest child, Michael, used not only rising intonation and the morpheme "eh", but the morpheme "tu". The latter category included such questions as T'as tu *douzaine d'oeufs?* and *Marcel il vient tu?*. At this same age (3.2), Monica began to produce questions with "est-ce que". By 3.4, "est-ce que" began many of her yes/no questions. It was not until age 3.8 that the sudden increase in the frequency of production of "est-ce que" was observed in Michael's data. At that time, "est-ce que" was added to questions containing the question morpheme "tu", as in *Est-ce qu'on joue tu au magasin?*; to inverted questions, as in *Est-ce que veux-tu les donner à elle?*; and to English questions, as in *Est-ce que you give it to her?*.

Between 3.3 and 3.8, Michael produced yes/no questions in which the subject followed the first verbal element. For example, he asked *Do you see the glasses?* and *Veux-tu un bonbon?*. However, this order of constituents did not occur with other forms of "do" such as "does" or "did"; with other auxiliaries such as "can", "is", etc.; or with other subjects than "you" and "tu". It is suggested that at this point in Michael's linguistic development "do" was a question morpheme, and that sequences like "veux-tu" were simply reduced versions of sequences like "tu veux tu". By 3.9, the data suggest that Michael could use order to signal yes/no questions so long as the questions were not negative. This applies also to Douglas at this age.

From 3.9 through 4.5, the verbal system was further developed and refined. Correct orderings of the verbal and subject constituents were learned.

If we look very generally at these results, the following developmental pattern emerges in the use of devices to signal yes/no questions. Intonation is the first device to be used. Second are the special-purpose morphemes, first at the end of the unit ("eh"), next, internal to the unit ("tu"), and finally at the beginning of the unit ("est-ce que"). Third is the rearrangement of constituents within the sentence. This order is in general agreement with the universal order suggested by Slobin (1970) concerning the emergence of linguistic means for expressing semantic notions. Given the thesis that the same processes are involved in the acquisition of codes, whether the codes are languages or subvarieties of a language, this is to be expected.

The results also provide some evidence in support of a common storage model. At the time data collection began, only the linguistic means for signalling yes/no questions that are exactly the same for both languages had been learned. Clearly, to know whether they were acquired separately or not, one would have to collect data from an earlier period. However, the one device whose acquisition was unmistakably observed -- "est-ce que" -- suggests that it was first considered as a rule common to both codes. Only later was it tagged as appropriate solely to French. On the other hand, rules for the rearrangement of verbal and subject constituents appeared to be acquired independently for each code.

Summary

It was suggested that in both a psychological and a linguistic sense, all individuals are at least bilingual, many multilingual. This implied that the simultaneous acquisition of codes and code-switching are universal aspects of linguistic development and behaviour. The simultaneous acquisition of a part of two codes was then examined. It was apparent that the emergence of linguistic means for signalling yes/no questions corresponded to those found in other situations.

The development of a single, unified theory of code acquisition and code-switching would appear necessary.

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Bilingualism in the Six-Year-Old Navajo Child[1]

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With growing strength in the last twenty years, English has established its place as a second language on the Navajo Reservation. Spreading partly through contacts that take place off the Reservation, and even more significantly through the influence of the school, its position is now such that over two-thirds of Navajo six-year-olds come to school with some knowledge of it. But not enough to do first-grade work in it: under a third are judged by their teachers to be ready for this.

In this paper, we report on studies of the present situation, discuss some of the factors that contribute to it, and make some tentative predictions. As well as the shift from Navajo to English, we discuss details of English borrowings in the speech of six-year-old Navajo children.

Our studies have been intended as background to our investigation of the feasibility and effect of teaching Navajo children to read in their own language first. We carried out a first survey in 1969[4] and repeated it in 1970[5] including a greater number of schools. The general method adopted in each survey was to send a simple questionnaire to all teachers with Navajo six-year-olds in their class. Returns to the 1970 survey provide data on

79% of the Navajo children born in 1964, covering 84% of those actually in school.

The questionnaire asked teachers to rate the language capability of each of their six-year-old Navajo pupils at the time he or she started school in September using the following five-point scale:

N:	When the child first came to school, he or she appeared to know only Navajo, and no English.
N-e:	When the child first came to school, he or she appeared to know mainly Navajo; he or she knew a little English, but not enough to do first grade work.
N-E:	When the child came to school, he or she was equally proficient in English and Navajo.
n-E:	When the child came to school, he or she knew mainly English and also knew a bit of Navajo.
E:	When the child came to school, he or she knew only English.

To check the reliability of the instrument, ten teachers were asked to fill out the questionnaire a second time some six months after the first: overall correlation of 187 early and late ratings was 0.78. The validity of the questionnaire was investigated by having 194 pupils at

18 schools rated by pairs of trained bilingual judges using a standardized interview: a comparison of teacher and judge ratings gave an overall correlation of 0.67. Similarly satisfactory results were gained in a validity check in a parallel use of the instrument by Southwestern Cooperative Educational Laboratory.

The results of the survey for 1969 and 1970 are similar. The 1970 data are summarized in Table I.

TABLE I

Language scores in 1970 - Summary

School	Number of six-year-olds	%				
		N	N-e	N-E	n-E	E
BUREAU OF INDIAN AFFAIRS						
Chinle	385	45	43	10	1	2
Eastern Navajo	383	39	48	10	1	1
Ft. Defiance	388	25	49	23	2	
Shiprock	324	39	46	14	1	3
Tuba City	382	62	33	4	.7	.3
Hopi	11	73	18	9		
Total	1873	42	44	12	1.3	.7
PUBLIC						
New Mexico	1046	13	32	37	10	8
Arizona	471	22	35	21	10	12
Colorado	27	11	67	7		15
Utah	86	13	52	23	5	7
Total	1630	16	35	31	9	9
MISSION						
Arizona	56	11	23	20	35	11
New Mexico	35		23	23	37	17
Total	91	7	23	21	36	13
INDEPENDENT						
Rough Rock Demonstration	59	58	29	8		5
Total	59	58	29	8	0	5
GRAND TOTAL-all schools	3653	29.8	39	20.7	5.7	4.8

From the table, it will be seen that 29.8% of the children were reported as knowing only Navajo, 39% as knowing a little English as well, 20.7% as more or less balanced, 5.7% as mainly English speakers, and 4.8% as speaking only English. The weight is clearly on the Navajo side: the child who speaks English is an exception. It is clear that most parents still speak Navajo to their children and that school is the first real contact with English for most children.

But there is evidence that the use of English is growing. In the case of a good number of schools, we have data for both 1969 and 1970. Comparison of these data for the same schools gives the following results:

1969 Mean Language Score 3.99 (S.D. 1.01)
1970 Mean Language Score 3.90 (S.D. 1.04)

The change of 0.09 is significant (F = 8.97, significant at the $p. < .01\%$ level).

Any prediction based on these data is speculative, but certain guesses can be hazarded. Assuming the data are accurate (or at least that the error each year is likely to be the same), there was in one year a change towards English of .09 on a scale ranging from 5.00 (Navajo only) to 1.00 (English only). A conservative guess would choose 1949 as the last year in which almost all Navajo six-year-olds would have come to school speaking only Navajo. In twenty years; then, there has been a shift from close to 5.00 to 3.99, which averages 0.05 a year. A language shift is not a simple progression, but tends to accelerate: the larger the proportion using the new language, the faster others are likely to learn it. The 0.09 for 1969-70 is probably not a doubling of the average rate but a point on a steady increase. Assuming this to be the case, it is not unreasonable to suspect that by the end of the present decade, the mean language score might be close to 3.00, which is bilingual on the scale.

But it would be a mistake to predict that all Navajo six-year-olds will be bilingual in 1980. The kind of situation that is more likely is one developing out of the currently observable difference between children in rural areas and those living in the newly developing semi-urban settlements. This becomes clearer if one notes the distinction between public schools and Bureau of Indian Affairs schools. About 50% of the 55,000 school age Navajo children attend public schools which operate according to the state in which they exist: public school districts on the Reservation range in size from Gallup-McKinley with close to

10,000 pupils to Navajo Compressor Station No. 5 with 21. By agreement between the Bureau of Indian Affairs and the Navajo Tribal Council, public schools usually enroll children who live within a mile-and-a-half of the school or of an established school bus route. The widely dispersed pattern of traditional Navajo rural settlements and the lack of paved roads on the Reservation means that public schools draw their pupils mainly from government compounds or from the developing towns where most of these schools on the Reservation are located. A comparison of the language situation in the two kinds of schools reveals a striking difference: for BIA schools, the average language score in 1970 is 4.26 and for public schools it is 3.39. Only 14% of the children in BIA schools were considered to know enough English for first grade work, while 49% of the children in public schools reached this figure.

From this additional fact, then, it might be guessed that an overall mean score of 3.00 in 1980 would be likely to reflect a situation where Navajo "urban" children will come to public school speaking a variety of English and Navajo rural children will still be mainly speakers of Navajo.

A study of some of the factors contributing to this increase in the use of English throws more light on the kind of bilingualism that the Navajo child lives with. For Navajo, there have been two distinct classes of contact with English. The first class is made up of contacts that occur off the Reservation. Many Navajos live and work in a city far away: Los Angeles, the Bay area, Chicago, Denver and Albuquerque all have large Navajo populations. Many leave the Reservation for schooling, attend a boarding school or a border-city dormitory or go away to college. And the shopping trip to a town on the edge of the Reservation is a common event. The second class of contacts is on the Reservation itself. In this class, the major factor is school. Traders generally have learned Navajo; churches and missions mainly use Navajo; Public Health Service officials who do not themselves speak Navajo. Radio stations broadcast in Navajo about 150 hours a week. But the school is still almost completely monolingual in English. There are exceptions: a few pilot bilingual education programs, Navajo speaking teacher aides in beginner's classes, Navajo-speaking employees to serve as interpreters, but basically school is a place where English is spoken, and were one must speak English to participate in the institution.

In looking at the increase of English, two main centers of diffusion might be expected: off-Reservation towns, and schools on the Reservation. To investigate the relative influence of these factors, we studied the relation between six-year-old language use and ease of access to these two places.[6]

For language use, we used the teacher rating described above. For ease of access to off-reservation town, we calculated an index which consisted of distance plus factors added to represent the state of roads (paved roads for instance were taken at face value, ungraded dirt roads multiplied by four). The correlation between a school's mean language score and its accessibility index was calculated: in 1969 the correlation was .517 and in 1970 it was .55. We can reasonably conclude that the closer a community is to the edge of the Reservation, the greater the likelihood of speaking English at home.

The second kind of accessibility we considered is ease of access from the child's home to school. This shows up first in the variation between kinds of schools that was discussed above. It is almost always the case that children attending public schools live closer to school than those who attend BIA schools: the much greater amount of English spoken by the former has already been pointed out. This difference shows up when we compare cases of BIA and public schools in the same locality (and therefore having the same index of accessibility to town): in twenty such pairs, the six-year-olds come to public school with much more English.

To look at this further, we calculated the correlation between individual language scores and individual ease of access in the case of two schools, Rock Point and Lukuchukai. In Rock Point, with 48 six-year-olds, the average language score in 1970 is 4.26, the average index of accessibility from home to school, 12.7 (S.D. 12.9), and the correlation between the two 0.28. In the case of Lukuchukai, we compared accessibility of the off-Reservation town (Gallup), accessibility of the school, and language score. The two accessibility indices correlate negatively in this case (-0.39) because the closer a family lives to school, the further it lives from town. No correlation (-0.01) showed up between individual language scores and individual accessibility from home to town, showing that this is a factor affecting a whole community rather than individual members of it, but there is a correlation (0.12) between individual language scores and ease of access to school.

Further light on linguistic acculturation comes from a study of English loan words in young children's speech.[7]

Earlier descriptions of Navajo agreed on the lack of receptivity to borrowing. Haile summed up the general view when he wrote: "Pueblo contact has not influenced Navaho to a noticeable degree, while Spanish elements in the language are comparatively few, and English elements practically none."[8] This supported notions that there was something about the structure of Athabaskan languages that makes them unwilling to borrow.[9] But as Dozier points out,[10] sociolinguistic factors are more influential in borrowing than linguistic ones. With the increased contact that took place during and after World War II, there was increasing pressure from English, resulting, it seems in a great deal of borrowing.

In our study, we looked at English words that appeared in interviews we had recorded with over two hundred young Navajo children. Of the 5,756 different words that occurred in the text, over five hundred different English loan words occurred. Generally, as would be expected, they were words for objects or concepts introduced through the English-speaking culture. A large number of words were school-related (bus, book, chalk, ball, pencil, puzzle, blocks, math); others were names of objects or concepts probably introduced through the school (camel, elephant, alligator, Christmas tree, record player, teeter-totter, swing). A good number were names of foodstuffs or household objects (beef, oatmeal, lettuce, ice cream, butter, grapes, cookies, chips, chair, table, toilet, mouse trap, cup, spoon, clock), tending to be articles not traditional in Navajo life. Numbers and colors were also common, and terms for occupations (babysitter, cowboy, clown, policeman, principal). Surprising were the kinship terms (father, grandma, little sister).

As a general rule, the words borrowed were nominal in character: 453 of the 508 were nouns in English; and with a few interesting exceptions, they were all used as nouns in Navajo. Appropriate prefixes (*shipant* 'my pants') and suffixes (*schooldi* 'at school', *record playeryę́ę́'* 'the absent or non-functioning record player') were added. Often, a complete phrase (*hide and go see*, *window close*) occurred, sometimes as a free form and sometimes integrated into the Navajo sentence. In no case, however, did we find an English word treated as a verb stem and integrated into the complex verbal system.

We have no definite evidence on the status of the words in Navajo. On occasion, a child was willing or able to give a Navajo equivalent when the interviewer insisted.

Four bilingual college students were able to think up Navajo equivalents for most of the words, but agreed that they themselves would be likely to have used most of the loan words when speaking Navajo to someone they knew to be bilingual.

Writing under thirty years ago, Reed reported the Navajo as a people with a "highly independent spirit" and "a definite disinclination to learn and speak the languages of other people."[11] Absolutely and proportionately, the Navajo people remain the largest group of non-English speaking Indians in the United States, but there are clear signs of a growing diglossia. The six-year-old Navajo child is far from being bilingual, but there is a growing chance that he will be acquainted with English before he comes to school.

Notes - continued

4. Bernard Spolsky. "Navajo Language Maintenance: Six-Year-Olds in 1969". Language Sciences. December 1970, No. 13, pages 19-24.

5. Bernard Spolsky. "Navajo Language Maintenance II: Six-Year-Olds in 1970". Navajo Reading Study Progress Report No. 13, The University of New Mexico, August 1971.

6. Bernard Spolsky. "Navajo Language Maintenance III: Accessibility of School and Town as a Factor in Language Shift". Navajo Reading Study Progress Report No. 14, The University of New Mexico, August 1971.

7. Agnes Holm, Wayne Holm, and Bernard Spolsky. "English Loan Words in the Speech of Six-Year-Old Navajo Children". Navajo Reading Study Progress Report No. 16, The University of New Mexico, August 1971.

8. Fr. Berard Haile, O.F.M. Learning Navaho. Vol. I. St. Michaels Press, 1941. p. 1.

9. Edward Sapir. Language. Harcourt Brace 1921 (1958). p. 196.

10. Edward P. Dozier. "Linguistic Acculturation Studies in the Southwest". In Studies in Southwestern Ethnolinguistics, edited by Dell H. Hymes and William E. Bittle. Mouton and Co. 1967.

11. Erik Reed. "Navajo Monolingualism". American Anthropologist. 46 (1944): 147-9.

DEVELOPMENT OF PRE-READING SKILLS IN
A
SECOND LANGUAGE OR DIALECT

ABSTRACT OF

A Paper Presented at the Conference on Child Language
Conrad Hilton Hotel, Chicago
November 22-24, 1971

By
Serafina Krear, Ph.D.
Sacramento State College
1971

ABSTRACT

"Development of Pre-Reading Skills in a Second Language or Dialect"

A socio-linguistic perspective for teaching reading in bilingual programs begins with an assesment of the bilingual reality of the school community and the community wishes for attempting to maintain or change that reality through the bilingual program.

Decisions to introduce reading in the prestige dialect of a non English tongue, the local dialect either of the English or non English tongue, or of standard English affect the pre-reading program as well as the oral second language or dialect programs. Models will be presented for delayed reading and dialect reading programs based on socio-linguistic description of the community and assesment of community wishes. Implications from the literature on the teaching of reading in non-English tongues will be discussed. There is a trend toward emphasis on the development of the receptive bond of the language for second language learners which must be analyzed with respect to pre-reading skills.

DEVELOPMENT OF PRE-READING SKILLS IN

A

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Development of Pre-Reading Skills in a Second Language or Dialect

Federally funded bilingual programs are rapidly multiplying across the nation as funds, expertise and community interest increase. To shift from an ethnocentric monolingual curriculum to a bicentric bilingual curriculum implies a great deal more than doubling staff and efforts. Decision models for bilingual programs are non-existent. Although Mackey (1969), Andersson and Boyer (1969), and Valencia (1969) have developed sophisticated descriptions of possible curriculum patterns, educators are still searching for clearly defined criteria for selecting a particular course of action. The most critical relationships needing clarification are in the areas of oral language, pre-reading skills and developmental reading.

It is the purpose of this paper to suggest that there should be a relationship between the sociolinguistic reality of the school community, the satisfaction or dissatisfaction of community members with that reality and decisions regarding the language or dialect for pre-reading and reading development. Decision models derived from a sociolinguistic perspective for biliteracy programs will be presented.

At the 1970 TESOL convention, Joshua Fishman's paper clearly presented the rationale for deriving bilingual programs from a sociolinguistic assessment of the community. His concept of using descriptions of communities in maintenance or language transfer patterns as a sound basis for curriculum development seems logical. This investigator's translation of Fishman's suggestion led to the development of a concept currently being field tested in a Title VII project in Sacramento, California, "The Valley Intercultural Project."

It was hypothesized that non-English speakers living in a community of language shift would find it difficult to meet their needs whereas non-English speakers living in a language maintenance community could participate meaningfully within their respective communities without knowing English. It follows then that the bilingual reality in a community has a direct relationship to the urgency or lack of it for learning English to meet personal needs. That is to say, in a community of language transfer children need to learn English efficiently and immediately. A program designed to mirror the bilingual reality of such a community would give greater emphasis to English as a second language or dialect than to dialect or mother tongue development. On the other hand, in a language maintenance community where there is no urgency to learn English a greater emphasis can be given to dialect or mother tongue development. Pre-reading and reading skills, then, would be developed in English in a transfer community and in Language X or Dialect X in a maintenance community. The development of an oral language, pre-reading and reading program as just described is both simplistic in nature and arrogant in spirit for although it has a sociolinguistic base it is derived from the ivory tower.

A more sophisticated approach would consider the wishes of community members before making such curricular decisions. A grass-roots approach would involve community members not only in assessing the bilingual reality but also in deciding whether they wish to mirror that reality in

SOCIOLINGUISTIC DECISION MODEL

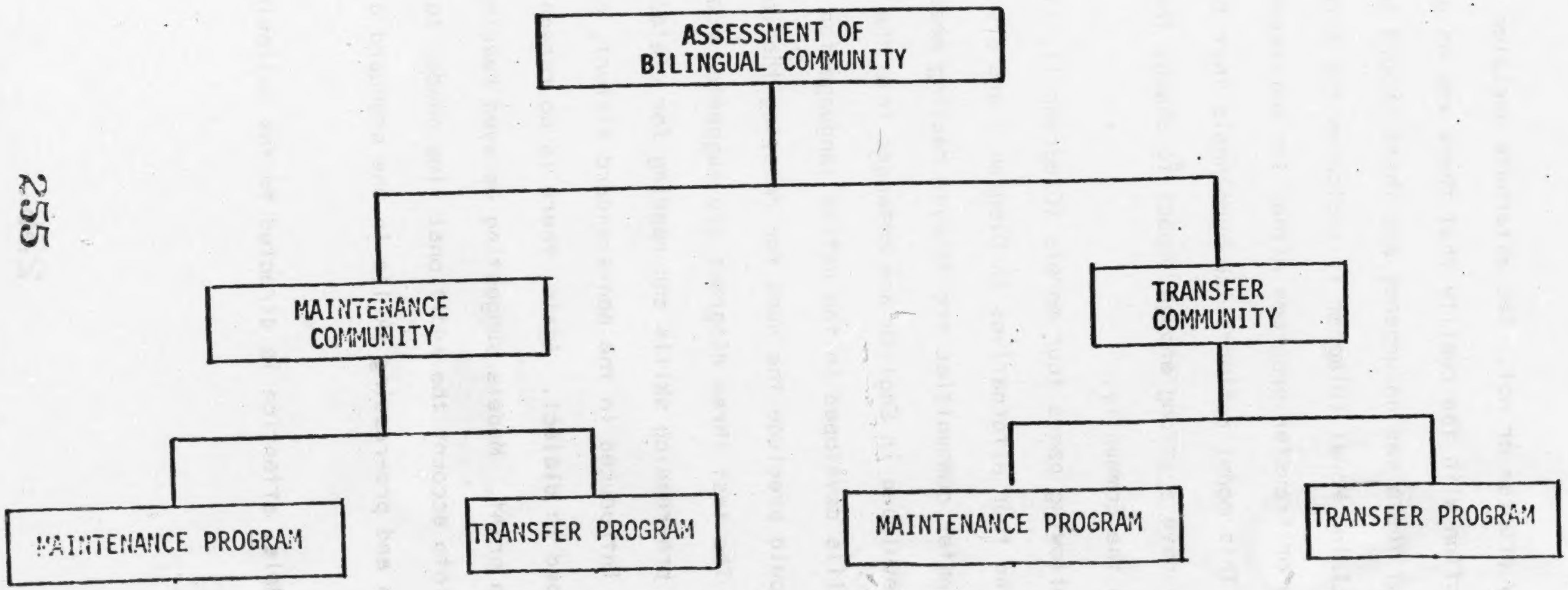

ASSESSMENT OF BILINGUAL COMMUNITY
MAINTENANCE COMMUNITY
TRANSFER COMMUNITY
MAINTENANCE PROGRAM
TRANSFER PROGRAM
MAINTENANCE PROGRAM
TRANSFER PROGRAM

DIAGRAM I

the biliteracy program or not. The alternate decision would be based on dissatisfaction with the reality that there was an urgency to learn English or that there was no urgency and there should be. The Sociolinguistic Decision Model (Diagram I) indicates the alternate choices of maintenance or transfer programs either for maintenance or transfer communities. This model reflects the hypothesis that the bilingual curriculum may have a strong enough impact to change the bilingual reality within the community.

On the following pages four models (Diagrams II, III, IV, V) representing the four alternatives in Diagram I are presented. The models for transfer communities are delayed reading models; pre-reading skills being developed in English are extended into the middle of Grade I. Pre-reading skills developed in the native language for maintenance communities should preclude the need for delaying the introduction of the printed word. The last three diagrams are suggested models for the development of pre-reading skills and reading for dialect speakers. If print is to be introduced in the non-standard dialect, pre-reading skills must be developed in dialect. Again, there is no reason to delay the introduction to print. Models suggesting delayed reading for dialect speakers take into account the additional time needed to teach oral language skills and pre-reading skills in the standard dialect or new language.

In the models, attention is directed to the following premises:

1) A maintenance program results in equal time distribution; that is 50% of the school day will be spent in English and 50% in Language X or Dialect X.

2) A transfer program results in an increased emphasis in English; that is approximately 75% of the school day will be spent in English and the remainder in Language X or Dialect X.

3) None of the models presented here transfer totally to English; such programs are not being discredited by omission. By Title VII guidelines they are not fundable at the point where the transition to English is complete.

4) All models adhere to the principle that pre-reading skills must be developed in the same language or dialect selected for the introduction of reading.

5) Models show transition patterns over a four-year period.

6) A basic principle underlying the models is that in a transfer community, the non-English speaker cannot meet his needs. The pressure to learn English in such a community must be reflected in the emphasis given to ESL.

7) All models adhere to the principle that during the first year of school, concepts must be presented in the student's native language or dialect. At least 75% of the time allotted for concept development is shown to be in the native language. The instructional model (Preview-Review - Diagram IX) presented later clarifies the relationship between second language principles and concept development that must be considered in order to comply with USOE Title VII Guidelines which specify that at least one academic area must be presented in the second language.

8) All models in which reading is introduced in the second language or dialect are delayed reading models; this is indicated with an arrow drawn into the middle of first grade with a continuation of pre-reading skills supported by heavy emphasis of oral second language development.

9) None of the models for English speakers show reading introduced in the second language. This possibility for experimental study is not discredited by omission; the models for X-speakers may be applied to English speakers to validate or invalidate the following hypotheses:

a) If the phoneme/grapheme correspondence of language X is better than English, English speakers might have greater success in learning to decode by being introduced to reading in language X in a delayed reading program.

b) English speakers in the St. Lambert School near Montreal (d'Anglejan and Tucker, 1970) and Spanish speakers in the Hamilton School in Mexico City (Andersson and Boyer, 1969) learned to read in the second language successfully. English speakers in the United States having the "power" language and none of the identity problems of non-English speakers in this country may learn to read successfully in the second language if the motivation is based on solidarity rather than power.

10) Models presented for E and X speakers are based on the assumption that the languages spoken natively are not non-standard dialects (Diagrams II, III, IV, V).

11) Models for non-standard dialect speakers are presented for X-speakers only. However, the models should be applicable for bilingual programs where English as a Second Dialect is being taught (Diagrams VI, VII, VIII).

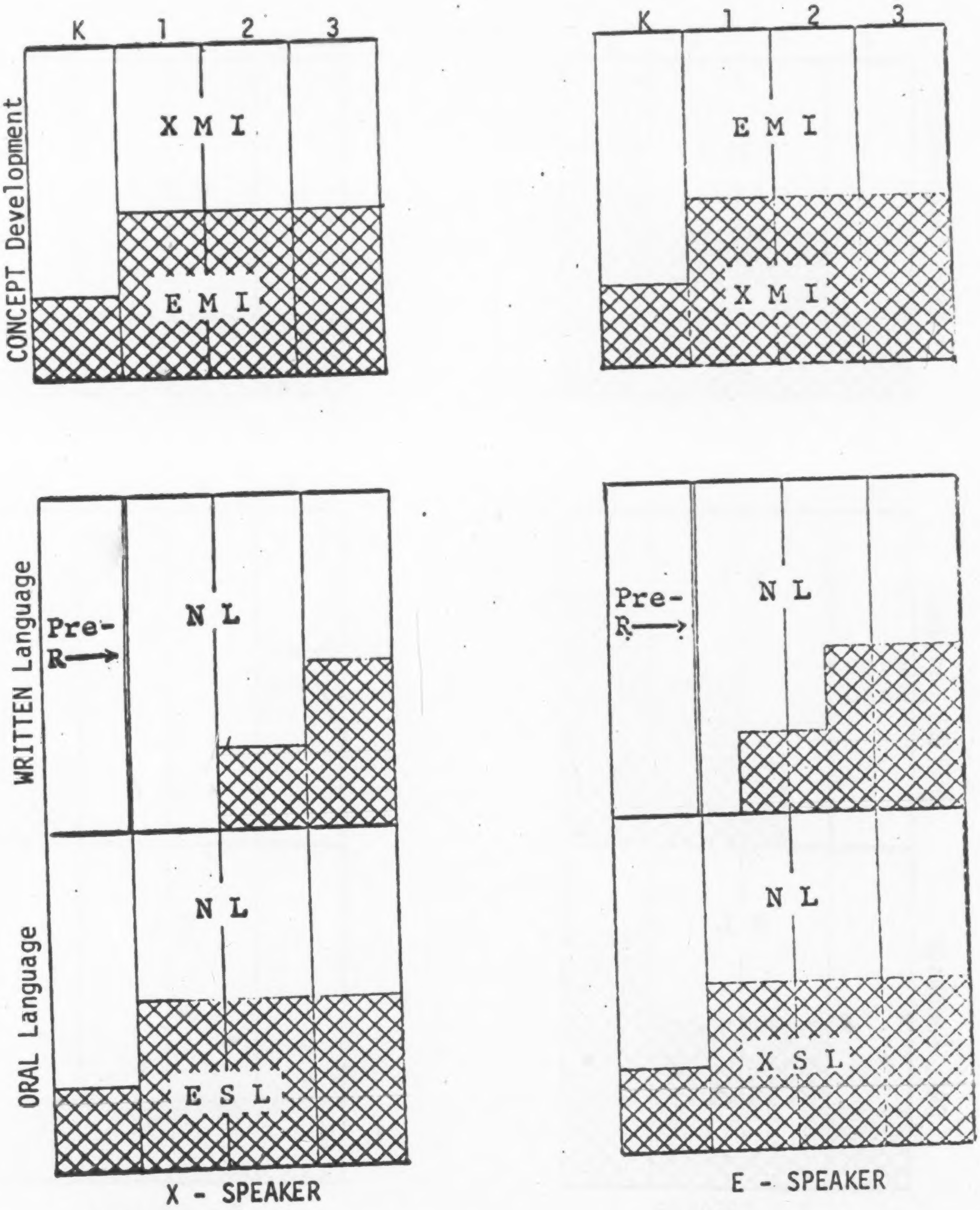
12) The alternatives presented in the dialect models are:

a) To introduce reading in dialect with a transition to reading the standard dialect before reading English. Decisions with respect to dialect reading materials must be made on the following possibilities:

1. Translations into dialect or existing materials representing dominant culture.

2. Materials written in dialect representing dominant culture, local culture or a combination, that is heterocultural materials.

MAINTENANCE Program
MAINTENANCE Community


K
1
2
3
CONCEPT Development
X M I
E M I
K
1
2
3
E M I
X M I
WRITTEN Language
Pre-R
N L
Pre-R
N L
ORAL Language
N L
E S L
N L
X S L
X - SPEAKER
E - SPEAKER

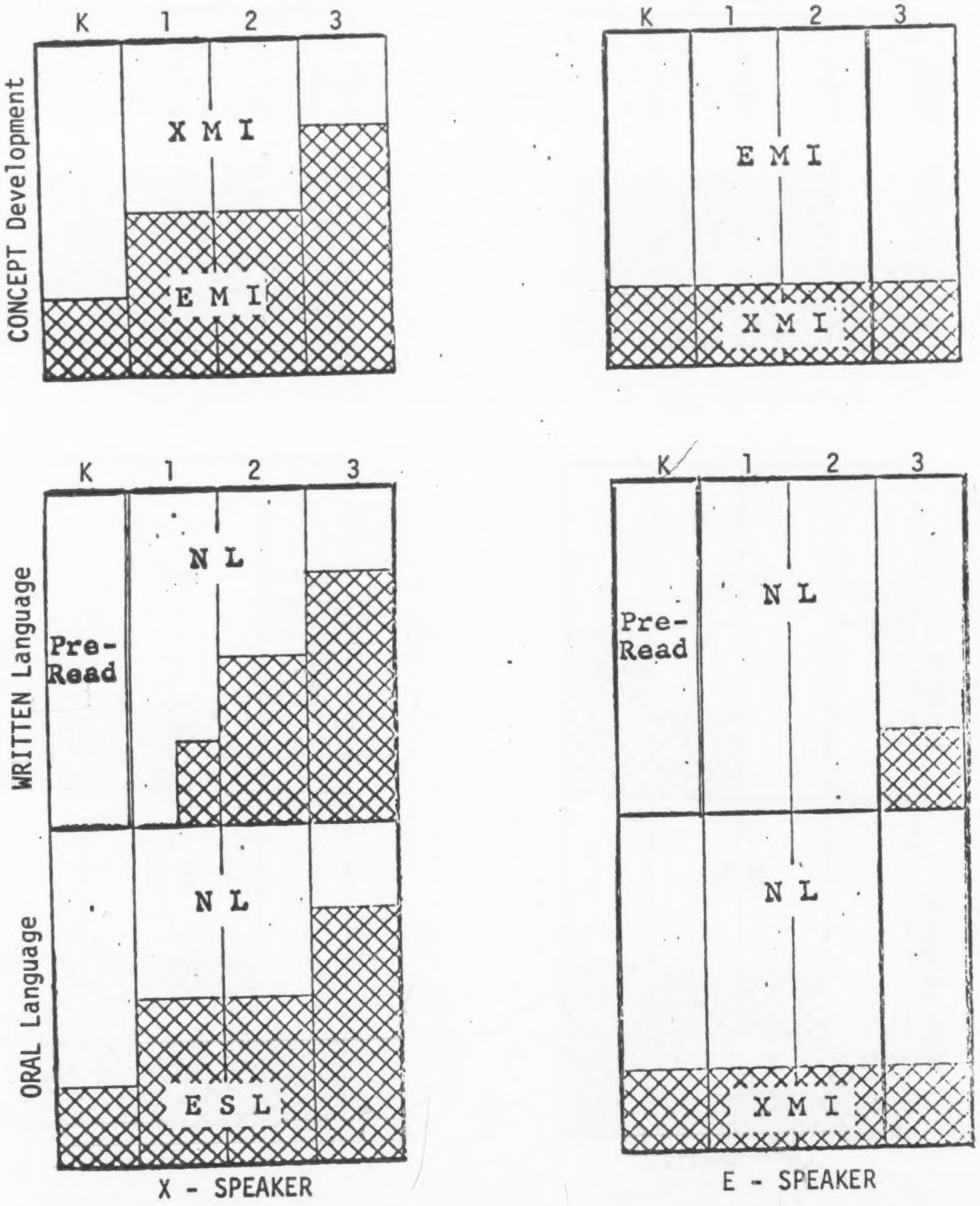
☐ **Native Language**

▨ **Second Language**

Pre-R	Pre Reading Skills
ESL	English as a Second Language
XSL	X as a Second Language
EMI	English as a Medium of Instruction
XMI	Language X as a Medium of Instruction

DIAGRAM II

TRANSFER Program
MAINTENANCE Community


K
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CONCEPT Development
X M I
E M I
K
1
2
3
E M I
X M I
K
1
2
3
WRITTEN Language
ORAL Language
Pre-
Read
N L
N L
E S L
X - SPEAKER
K
1
2
3
Pre-
Read
N L
N L
X M I
E - SPEAKER

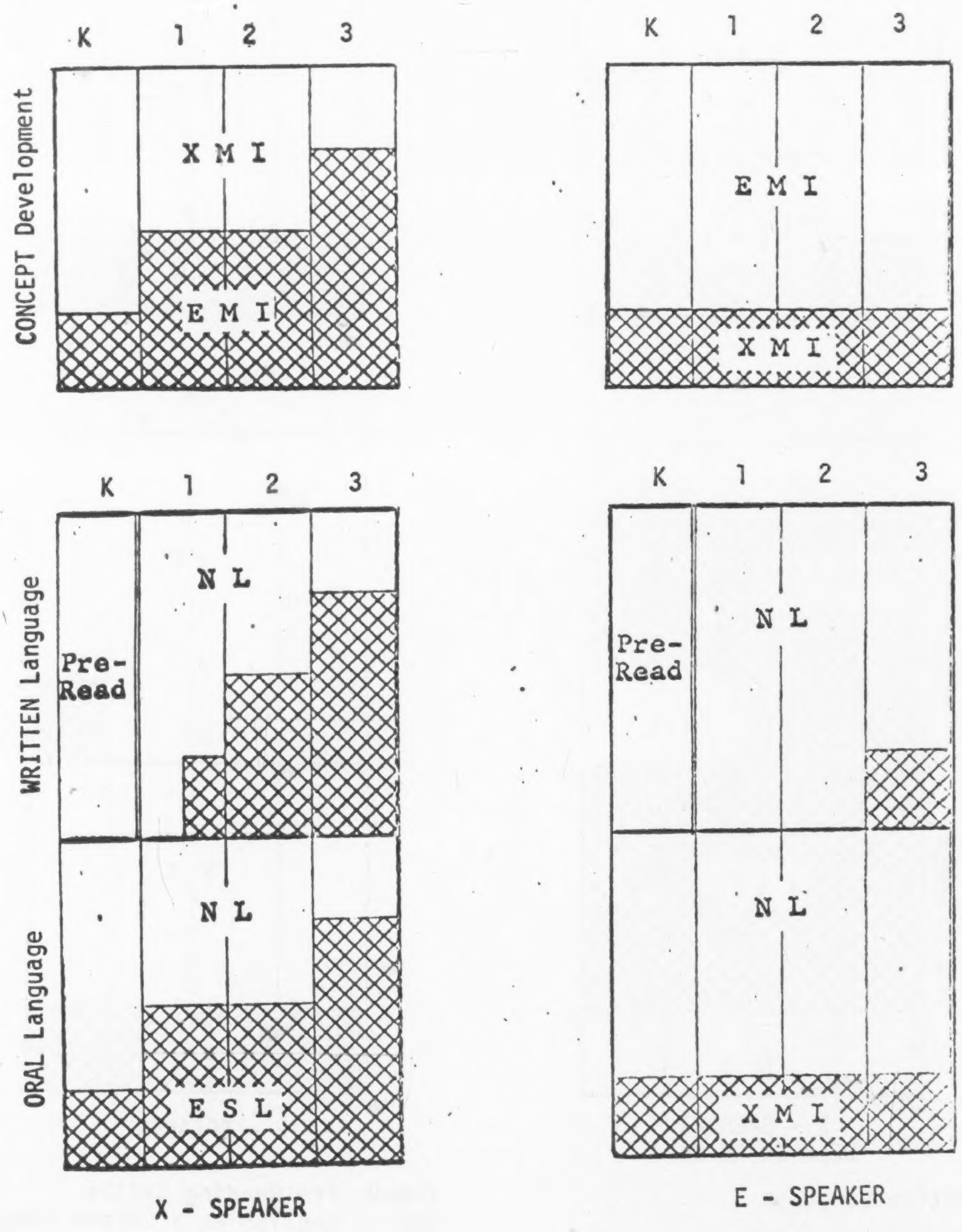
☐ Native Language

▨ Second Language

Pre-R	Pre Reading Skills
ESL	English as a Second Language
XSL	X as a Second Language
EMI	English as a Medium of Instruction
XMI	Language X as a Medium of Instruction

DIAGRAM III

MAINTENANCE Program
TRANSFER Community


K
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CONCEPT Development
X M I
E M I
K
1
2
3
E M I
X M I
K
1
2
3
WRITTEN Language
Pre-Read
N L
ORAL Language
N L
E S L
K
1
2
3
Pre-Read
N L
N L
X M I
X - SPEAKER
E - SPEAKER

☐ Native Language

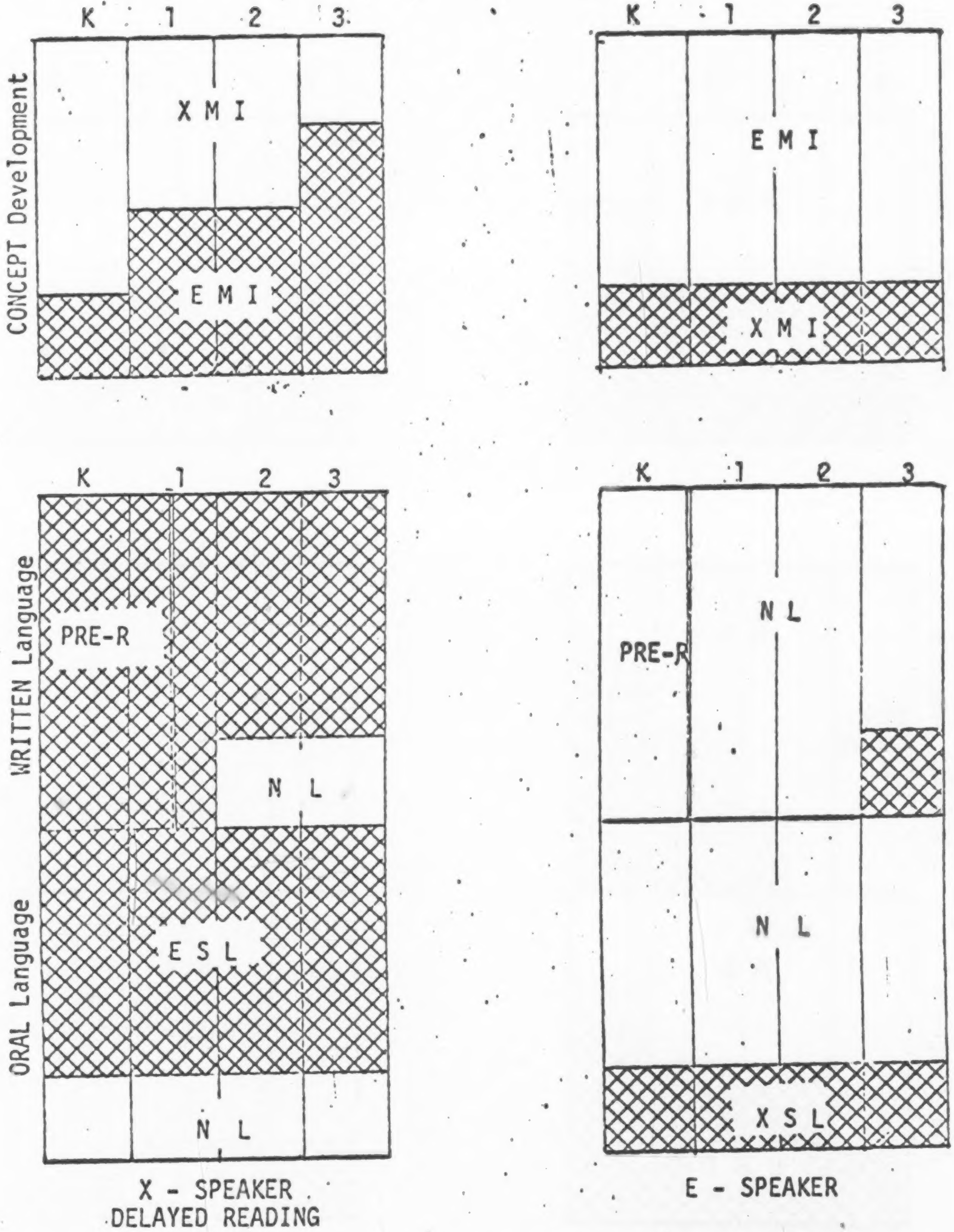
▨ Second Language

Pre-R	Pre Reading Skills
ESL	English as a Second Language
XSL	X as a Second Language
EMI	English as a Medium of Instruction
XMI	Language X as a Medium of Instruction

DIAGRAM IV

TRANSFER Program

TRANSFER Community

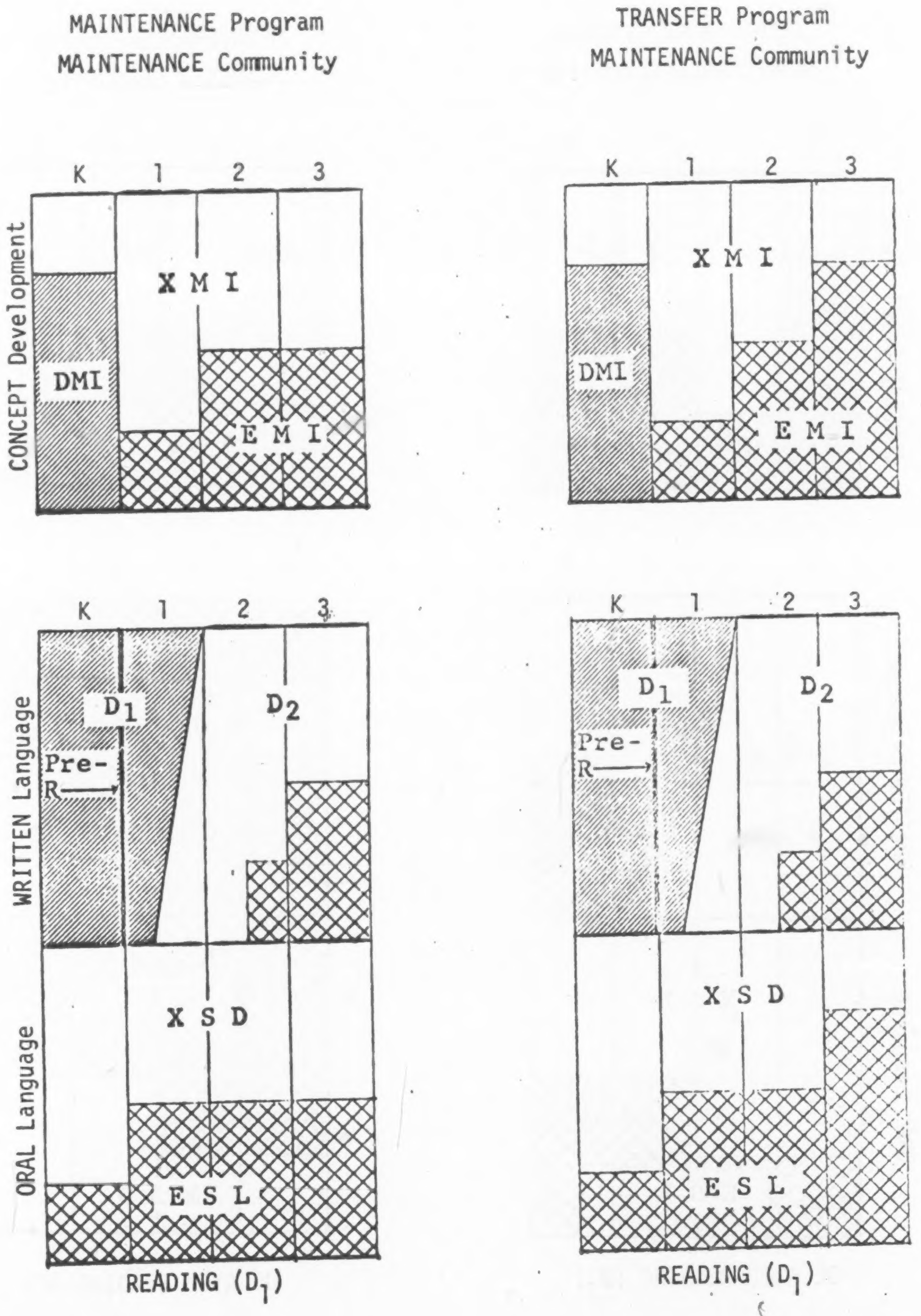

K
1
2
3
CONCEPT Development
X M I
E M I
E M I
X M I
WRITTEN Language
ORAL Language
PRE-R
N L
E S L
N L
PRE-R
N L
N L
X S L
X - SPEAKER
DELAYED READING
E - SPEAKER

☐ Native Language

▨ Second Language

Pre-R	Pre Reading Skills
ESL	English as a Second Language
XSL	X as a Second Language
EMI	English as a Medium of Instruction
XMI	Language X as a Medium of Instruction

DIAGRAM V


MAINTENANCE Program
MAINTENANCE Community
TRANSFER Program
MAINTENANCE Community
K
1
2
3
CONCEPT Development
DMI
X M I
E M I
WRITTEN Language
ORAL Language
D1
D2
Pre-
R
X S D
E S L
READING (D1)

▨ Non-Standard X (Dialect$_1$)

☐ Standard X (Dialect$_2$)

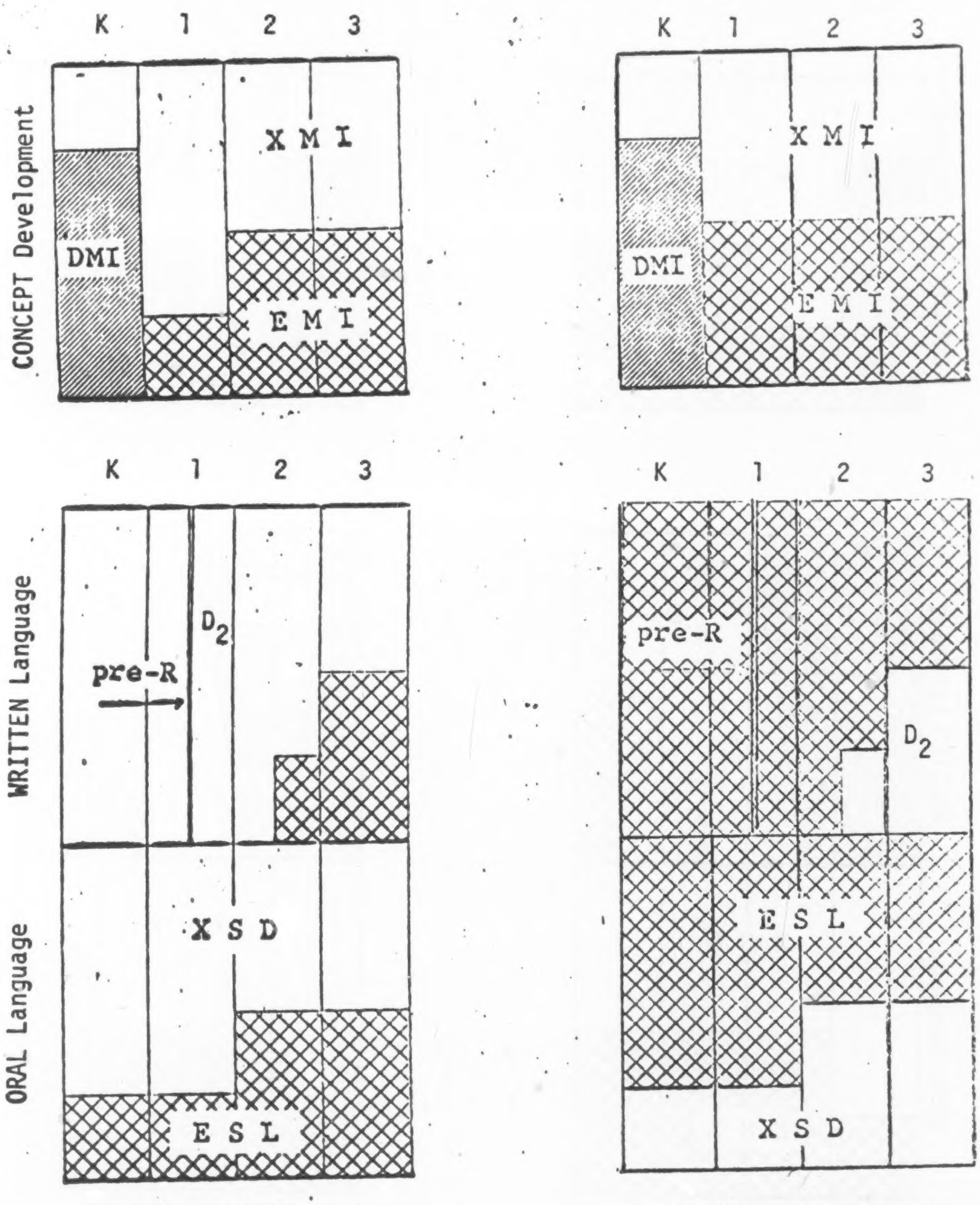
▩ Standard English

ESL	English as a Second Language
XSD	X as a Second Dialect
D_1MI	Dialect as a Medium of Instruction
XMI	X as a Medium of Instruction
EMI	English as a Medium of Instruction

DIAGRAM VI

MAINTENANCE Program
MAINTENANCE Community

MAINTENANCE Program
TRANSFER Community


K
1
2
3
CONCEPT Development
X M I
DMI
E M I
WRITTEN Language
ORAL Language
pre-R
D_2
X S D
E S L

DELAYED READING (D_2)

DELAYED READING (E)

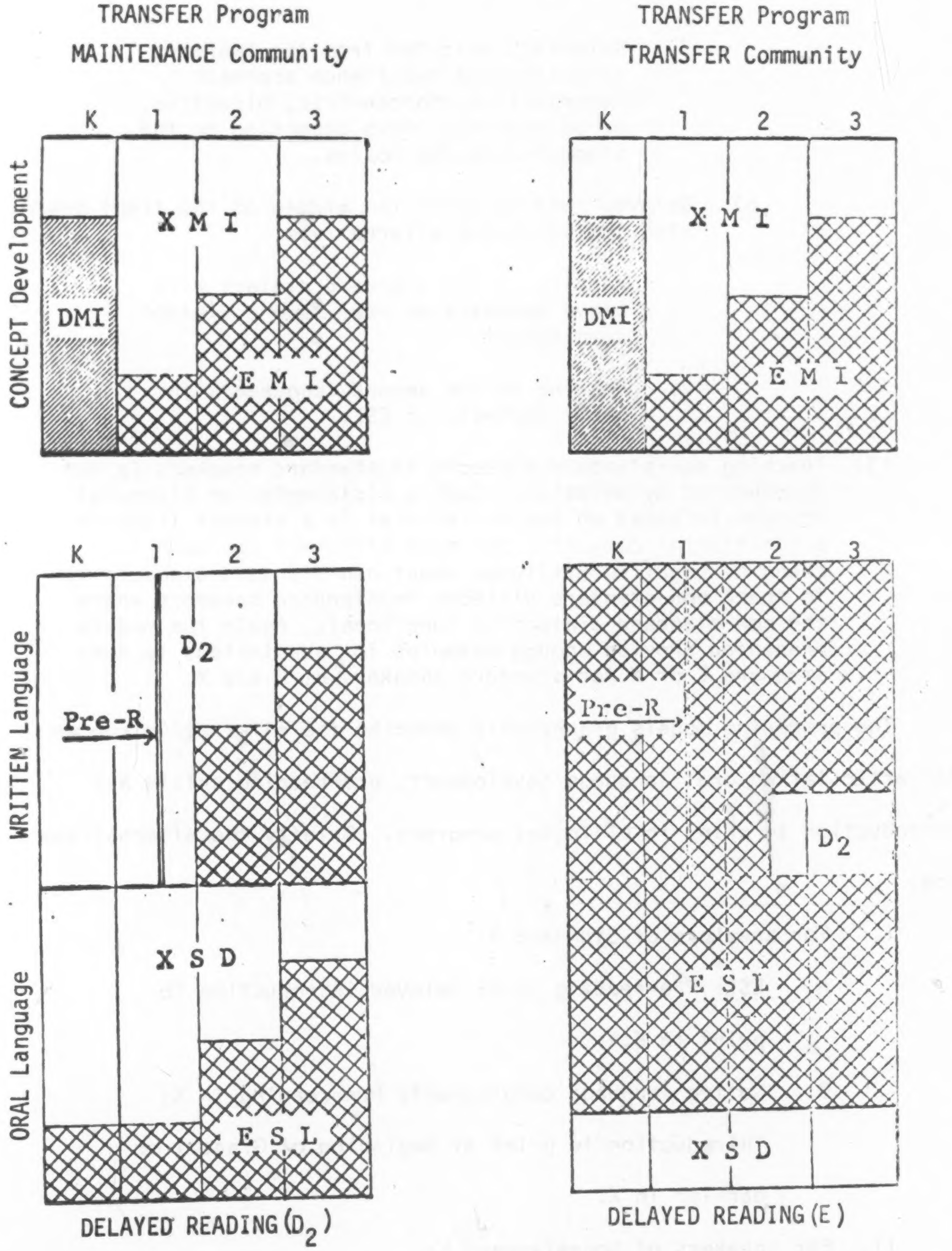
▨ Non-Standard X ($Dialect_1$)

☐ Standard X ($Dialect_2$)

▦ Standard English

ESL	English as a Second Language
XSD	X as a Second Dialect
D_1MI	Dialect as a Medium of Instruction
XMI	X as a Medium of Instruction
EMI	English as a Medium of Instruction

DIAGRAM VII


TRANSFER Program
MAINTENANCE Community
TRANSFER Program
TRANSFER Community
K
1
2
3
CONCEPT Development
DMI
X M I
E M I
WRITTEN Language
ORAL Language
Pre-R
D2
X S D
E S L
DELAYED READING (D2)
DELAYED READING (E)

▨ Non-Standard X (Dialect_1)

☐ Standard X (Dialect_2)

▩ Standard English

ESL	English as a Second Language
XSD	X as a Second Dialect
D_1MI	Dialect as a Medium of Instruction
XMI	X as a Medium of Instruction
EMI	English as a Medium of Instruction

DIAGRAM VIII

3. Materials elicited from the learners in a language experience approach representing ethnocentric, bicentric, or polycentric views depending on the students and the topics.

b) Delayed reading until the middle of the first grade with the following alternatives:

1. Reading in the standard dialect with heavy emphasis on oral second dialect development.

2. Reading in the second language with heavy emphasis on ESL.

13) Teaching non-standard dialects to standard speakers is not discredited by omission. Such a bidialectal or biloquial program is based on the belief that if a student lives in a bidialectal community the most efficient approach to changing negative attitudes about non-standard dialects is to teach non-standard dialects to standard speakers where the non-standard dialect is functional. Again the models presented provide enough examples for adaptations to non-standard E or X for standard speakers of E and X.

The preceding models graphically describe the alternative routes for articulating oral language development, pre-reading skills and introduction to print in bilingual programs. Briefly the alternatives are:

I. For speakers of Standard X:

  A. ESL; Pre-reading in E; Delayed introduction to print in E.

  B. Native language development; Pre-reading in X; Introduction to print at beginning of Grade I or earlier in X.

II. For speakers of Non-standard X:

  A. ESL; Pre-reading in E; Delayed introduction to print in E.

  B. XSD; Pre-reading in X; Delayed introduction to print in X.

C. Dialect development; Pre-reading in dialect; Introduction to print at beginning of Grade I or earlier in dialect.

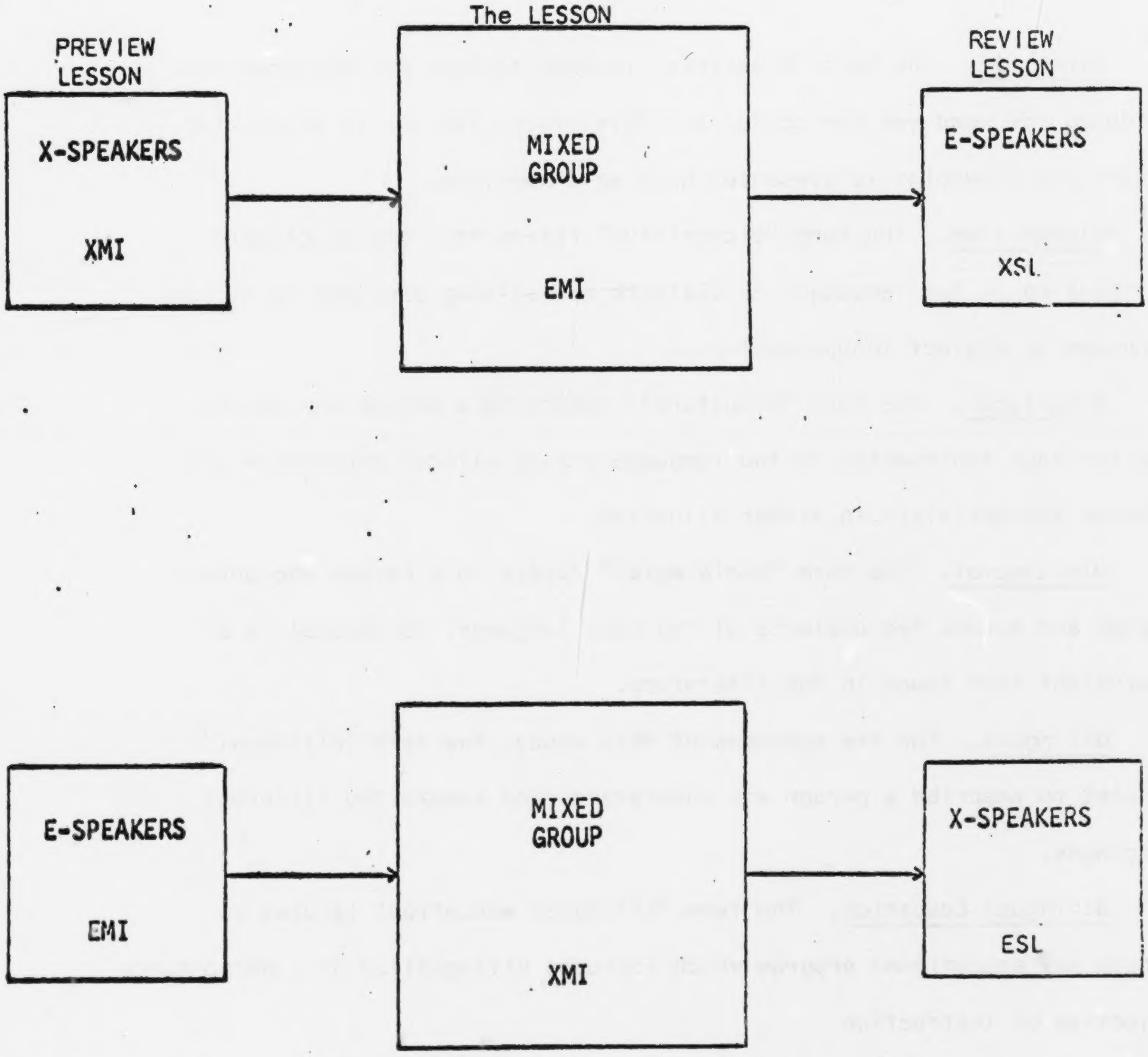
Pre-reading skills for speakers of English are designed to prepare a child to meet the language which he speaks in print. Many of the activities designed to prepare a speaker of English to read English have little if anything to do with preparing a Spanish speaker to read Spanish. The grapheme/phoneme fit in Spanish precludes the necessity of many pre-reading activities for English. It is critical that when the decision is made to introduce reading in standard or non-standard dialects of non-English tongues that teachers be given in-service training specifically designed for the language or dialect to be taught.

The preceding models show a relationship between the amount of time used for language development and the amount of time used for concept development. The model which follows clarifies the relationship between language and concept development. (Diagram IX)

The Preview-Review Model is presented in graphic form as a method of grouping for instruction; the basic principle is to develop concepts in an introductory, brief preview lesson. The main lesson is pictured as a larger box to indicate a fuller development of the concepts presented in the preview lesson; the main lesson is presented to a mixed language group. The review lesson is taught in the second language; this implies a measure of linguistic control in the earliest stages of language development. The model is based on the assumption that the student learns best in his native language; it allows for either the English speaker or the X-speaker to receive a preview lesson in his stronger language when the main lesson is in his weaker language. The model may be used for dialect speakers in bilingual programs.

PREVIEW-REVIEW

INSTRUCTIONAL MODEL FOR CONCEPT DEVELOPMENT


The LESSON
PREVIEW LESSON
X-SPEAKERS
XMI
MIXED GROUP
EMI
REVIEW LESSON
E-SPEAKERS
XSL
E-SPEAKERS
EMI
MIXED GROUP
XMI
X-SPEAKERS
ESL

Preview: Concepts are introduced in student's mother tongue.

Review: At the earliest stage linguistic control is necessary when concepts are presented in the second language.

EMI: English as a Medium of Instruction.

XMI: Language X as a Medium of Instruction.

XSL: Language X as a Second Language

ESL: English as a Second Language

DIAGRAM IX

GLOSSARY

Bicentric. The term "bicentric" is used to mean not ethnocentric. Although the word was not coined for this study, its use in describing a cultural viewpoint is presented here as a new term.

*Bicognitive. The term "bicognitive" refers to a person capable of thinking in two languages or dialects and solving problems in either language or dialect independently.

Bicultural. The term "bicultural" refers to a person who values the heritage represented in two language groups without preference and behaves appropriately in either situation.

Bidialectal. The term "bidialectal" refers to a person who understands and speaks two dialects of the same language. Biloquial is an equivalent term found in the literature.

Bilingual. For the purposes of this study, the term "bilingual" is used to describe a person who understands and speaks two different languages.

Bilingual Education. The term "bilingual education" is used to denote any educational program which includes bilingualism as a performance objective of instruction

Biliterate. The term "biliterate" refers to a person who has the ability to read and write two languages.

*Heterocultural. The term "heterocultural" refers to a person who values the heritage represented in two dialect groups without preference and behaves appropriately in either situation.

*Heteroliterate. The term "heteroliterate" refers to a person who reads and writes two dialects of the same language and uses each appropriately.

Maintenance pattern. In this analysis, the term "maintenance pattern" (Mackey, 1969, p. 8) will be used to describe the time distribution, whether different or equal, of a bilingual school having the maintenance of both languages as an objective.

*Multicognitive. The term "multicognitive" refers to a person capable of thinking in several languages and/or dialects and solving problems in each independently.

Multicultural. The term "multicultural" refers to a person who values the heritage represented in several language and/or dialect groups and behaves appropriately in each situation.

Multilingual. The term "multilingual" refers to a person who understands and speaks several languages and/or dialects. Polyglot is an equivalent term found in the literature.

*Multiliterate. The term "multiliterate" refers to a person who reads and writes several languages and/or dialects and uses each appropriately.

*Polycentric. The term "polycentric" is used to describe a non-ethnocentric viewpoint representative of several cultures.

Transfer pattern. In this analysis, in order to describe an abrupt or gradual shift from one medium of instruction to another, the term "transfer pattern" will be used. (Mackey 1969, p. 8)

*These terms were coined by the author for the purposes of this study.

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Child Bilingualism in an Immigrant Society: Implications of Borrowing in the Hebrew 'Language of Games'

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[A Preliminary Version]

1. The National and Linguistic Hebrew Revival

1.1 The new wave of nationalism and national revival in Europe in the nineteenth century, and the oppression of the Jews, especially in Eastern Europe, which culminated in the Pogroms against them throughout Czarist Russia, combined in the latter quarter of the nineteenth century with the age-long yearning of the Diaspora Jews for return to their ancient homeland, for national revival in the Land of Israel ("Palestine"). The idea of return to full productive life on the soil developed independently among the Jews who dwelled in the Holy Cities of Palestine too, and the first Jewish agricultural settlement there (Petaḥ-Tikvah) was indeed established by old-time Jews from Jerusalem in 1878.

A new national movement, called Hibbat-Zion ("The love of Zion"), which officially started in Russia around 1880, produced the first influx of immigrants, "The First 'Aliyah," to Palestine, which was then part of the Turkish Empire, and the first new settlements were established in 1882. This was an important milestone. The formal political Zionist movement started in 1897. Together with the national, political and social revival came the revival of the Hebrew language, indeed, as part and parcel of it. Moreover, modern Hebrew literature served to some extent as a catalyst for the national movement, and the very revival of Hebrew for regular, everyday communication, oral and written, among the heterogeneous components of the new Jewish society in the making in Palestine constituted an important factor in the general, national and social revival. In a way, it served as a cement for the entire process.

We cannot go here into details concerning the very process of the revival. We do it in other studies. But several sociolinguistic phenomena and processes connected with that revival are of significant relevance to our present discussion, and we will therefore mention them briefly.

1.2 For about 1700 years (from c. 200 C.E. till the 1880's), Hebrew did not function as a living language. It was not "dead and buried" like its "sisters" Ugaritic, Akkadian, etc. It was passively used in the Jewish House of Prayer and in the House of Learning, and actively in writing religious, literary and scholarly works throughout the ages; also in intercommunity communication, in written community records, contracts, in Responsa, correspondence among scholars, and the like (similar to Latin in the Middle Ages). Here and there, now and then, there was some use of it for oral communication too, but it was not used as a living language for regular everyday communication. In this sense, Hebrew was a "dormant" language.

Since the first settlers of the First 'Aliyah (1882-1904) came mostly from Eastern Europe (Russia, Poland, Hungary, Rumania, etc.), they did not have a real problem communicating among themselves, because practically all of them spoke Yiddish, usually in addition to the language of their home country. The problem arose when they had to communicate with those of their brethren who had no familiarity with Yiddish, especially the Oriental Jews who spoke Arabic, Ladino, Persian, etc. On some occasions, a spontaneous mutually intelligible "Hebrew" would somehow be used. Most of the pioneers did not seem to be bothered at first by this haphazard solution. But if they did not mind so much this abnormal linguistic situation, some of the leaders of the revival and the writers, many of the Hebrew teachers, and above all the first native children did mind. As we shall see later, the children were in the greatest need and hurry for an adequate linguistic solution, while not everybody agreed on the same solution.

1.3 To make a long story short, there was quite a struggle on the language hegemony, especially between Yiddish and Hebrew, which lasted many years and flared up anew from time to time. Then there was the famous (shorter but very acute) struggle between Hebrew and German, mainly concerning the language for teaching the sciences on the advanced level, which reached its peak in 1913-14. And there was also quite a conflict between the proponents of the various traditions of Hebrew pronunciation as to which should become the standard pronunciation of the revived language. More specifically, the question was whether the Ashkenazi (roughly: the European) or the Sephardi (roughly: the Oriental) pronunciation should be adopted, and which variety thereof, or what should be the ideal synthesis. After a short but intensive polemic, the "Sephardi pronunciation" was selected by most of the teachers in Palestine, as it was by Eliezer Ben-Yehuda, the great fighter for the revival of Hebrew speech.[1]

But not everybody started speaking Hebrew automatically. The adults came to Palestine equipped with a native language, often with more than one. And while some of them came with a poor (or no) previous knowledge of Hebrew, others had a good knowledge of it from their religious studies. But even the latter had a great difficulty in expressing themselves on simple daily matters. Hebrew was still basically a classical, literary language, still unadapted for oral communication of a modern man in a modern society.

To be sure, languages have a "built-in device" for expansion and adaptation, and Hebrew eventually made it. But it took some time (accelerated as that process actually was) and enormous efforts. And there were quite a few devoted zealots who promoted the revival by teaching, propaganda, coining of new terms, and the like.

However, the problem of the adults was not nearly as acute as that of the children, as we shall see below.

2. Immigration into a "Language in the Making"

2.1 The mass immigration of Jews to Palestine, and the problems of resettling, cultural adaptation, and the like, bring to mind, for instance, the mass immigration to the United States, but there are very distinct differences. The U.S.A. was established by English-speaking people, and English has been the dominant language since then. Now, unlike the case of the non-English-speaking new immigrants to the U.S.A., who had to adopt an established new language, and in most cases also adjust, at the same time, to an entirely new, more or less stable culture, the first waves of immigrants to Palestine had actually to participate in the formation of a new culture, as well as in the creation of a new language: adapting a classical literary language to the needs of a contemporary modern speech community. Thus, the "revival" of Hebrew, or the "re-activation" of this "dormant" language, was, in a way, a new creation. It was neither a continuity of, say, Biblical Hebrew, nor of Mishnaic Hebrew or any other layer of Hebrew, but an "eclectic continuation" of historical Hebrew.[2]

Now, if we compare, for example, the case of the Norwegian immigrant in the U.S.A.,[3] or that of the Yiddish-speaking East European immigrant to the U.S.A.,[4] and the like, with that of the first pioneers in Palestine, we will notice a somewhat special situation of bilingualism, i.e. that the latter had to "create" or "recreate" by themselves the other language, Hebrew, which was ideologically designated to become their dominant language in the new culture-in-the-making. This involved, under the pressures of the rapidly growing language (and culture), spontaneous borrowings from various languages, in order to accommodate the diverse immediate needs of the speakers, particularly in the domains of lexicon and idiom, in addition to the planned developments in the language by the "Language Committee" (Va'ad Ha-Lashon), the forerunner of the current Language Academy, which tried to provide additional lexical items by exhausting the old written "sources," and in their absence--to coin new terms, etc. (Cf. Chapter 4.)

2.2 Inasmuch as there is a difference between a bilingual and a multilingual setting, this case is comparable with the latter, especially in view of the "Babel" of languages that the immigrants brought along with them to Israel. Yiddish and Arabic were most crucial for spoken Hebrew at the beginning, with English more recently as the runner-up, as we shall see in a moment.

3. A Bilingual (Multilingual) Setting for the Hebrew Revival in Palestine

3.1 Palestine was basically a bilingual country in the past few generations. Officially there was there a third dominant language, that of the imperial rulers, which was used in the Administration. Thus, while the language of the Arabs was Arabic and the major language of the Jews since the beginning of this century was Hebrew--the language of the Imperial Administration was Turkish through World War I, and English between 1918 and 1948. It was during the British Mandate (1922-1948) that Hebrew was recognized as one of the three official languages, alongside English and Arabic.[5]

The relations between the three major languages were quite complex. Relatively few of the native citizens of both sectors (Jews and Arabs) really bothered to learn Turkish during the Turkish Administration. During the British rule (Mandate), English was learned in the schools rather intensively, usually as the first foreign language, but the British rulers were not liked by either sector, and this resentment was reflected in the attitude toward their language too. For instance, to demonstrate their resentment, Jewish school children who were required to learn English would often avoid learning the proper pronunciation of English. This was a special kind of revenge.... No wonder that English had a minimal effect on Hebrew at that time.

Interestingly enough, the study of English became more effective, English (rather, American) literature became more popular, and its impact considerably greater on Hebrew (and its literature) after the departure of the British and the establishment of the State of Israel, in 1948. First came some tightening of relations with the United States, and after some time came an improvement in the relations with England too, which resulted in greater influence on Hebrew.

Yiddish had unquestionably the greatest influence on Modern Hebrew in practically all domains of language. Second in significance was, in my judgment, the contact with Arabic, from the beginning of the revival in the 1880's until the establishment of the State of Israel in 1948. Since then English has assumed a most important role in the Israeli culture, in its literature, journalism, and various aspects of the Hebrew language.

But let us go back to the earlier period when Modern Hebrew was still in the cradle and when Arabic played a most significant role.

3.2 Speaking of Arabic, one should remember that not only Arabs spoke Arabic. Arabic, and special dialects of Judeo-Arabic, were also the native vernaculars of certain segments of the Oriental (i.e. Middle Eastern) Jews, who are often labeled Sephardim.[6]

For some time, the veteran, established Oriental Jews constituted the majority among their brethren. But later, especially since the latter quarter of the nineteenth century, with the mass immigration of Jews from Eastern Europe, the demographic composition of the Jewish community in Palestine did radically change. European Jews with a Yiddish (plus Slavic) background now constituted the prestigious majority and the Jews with Arabic background were soon a small minority.[7]

It should be, however, emphasized that Arabic used to be taught in many of the Hebrew schools (in some grade schools and in most high schools) in Palestine as a second foreign language, and that there were even some non-oriental Jews who acquired a good mastery of it.[8]

3.3 At any rate, the number of proficient Arabic-Hebrew bilinguals, i.e. of individuals who could speak both languages in a native or near-native manner, was relatively small. In other words, as pointed out by several scholars,[9] national bilingualism does not imply individual bilingualism. Often, for sociopolitical reasons, there are fewer (proficient) bilinguals in a bilingual country than there are in many monolingual countries. Then, there was a somewhat larger number of Hebrew-speaking individuals (essentially monolinguals) with a very limited knowledge of Arabic which does not justify the term "bilingual." The majority of the Jews in Palestine, however, did not know more than a few words and phrases in Arabic, which they usually acquired "second-hand," i.e. not from the native speakers of Arabic themselves, and hence they may have received it in a somewhat distorted form, as we shall see later. The important point about them is that they were those who actually forged and perpetuated the borrowings, so that many of the borrowed elements from Arabic manifest now the special features of "naive" adaptation and "innocent" language change.

4. Yiddish vs. Arabic

4.1 The difference between the impacts of Yiddish and Arabic on Hebrew speech is both qualitative and quantitative. Yiddish was at the base of the revival of Hebrew speech, providing the most significant foreign "substratum" for it (in spite of its rejection by vigorous revivers such as Eliezer Ben-Yehuda and other contemporaries), whereas Arabic, although important in certain areas, is less significant in others.

4.2 We mentioned above Eliezer Ben-Yehuda. He was not only the famous zealot of the revival of spoken Hebrew, but also the compiler of the most comprehensive "Thesaurus," *A Complete Dictionary of Ancient and Modern Hebrew*. On the one hand, he tried to comb the older sources for words which were not noticed before and which might be useful in the new situation, and, on the other, he incorporated in the Thesaurus scores of new words which he had coined himself. For cultural, sociological (socio-linguistic) and political reasons, he resented Yiddish more than all foreign languages. It was in the spirit of the Hebrew Enlightenment Movement of the 18th and 19th centuries to reject Yiddish, the language of the degrading Jewish Ghetto, even to refer to it scornfully as "Jargon," rather than Yiddish. But it seems to me (and this is also borne out by oral evidence from Ben-Yehuda's older daughter, Yemima), that he was also *afraid* of it. He was afraid of the danger of its becoming the dominant language, even of any kind of interference from it, since Yiddish was the language of the masses and of a great Jewish tradition in all of Eastern Europe. Moreover, it also started gaining prestige as a new literary language. Because of his resentment and fear he prevented his children (as his daughter Yemima told me) from playing with Yiddish-speaking children (but apparently not so much with others, i.e., Arabic- or Ladino-speaking children, since there were very few Hebrew-speaking children in Jerusalem in the 1880's and 1890's), as he also avoided making use of it in his coinings.

In coining new words he would rather resort to old Semitic roots. He would make special use of *Arabic* for deriving new "Hebrew" roots and coining new useful Hebrew words, e.g. '*adiyv* "kind," from Arabic '*adiyb*; *rəciyniy* "serious" from Arabic *raşiyn*, or *rəciynut* "seriousness," Arabic *raşa:na*, and the like.[10] Not all of his coinages were accepted.

This was the *planned* development, which not always prevailed. But there were also *unplanned* developments in which Yiddish played a very significant role (and see below about Arabic).

4.3 As mentioned above, the first waves of Jewish settlers who came "to revive the Land of Israel," in the 1880's and thereafter, were predominantly of East European origin. Most of them were native speakers of Yiddish, or bilinguals of Yiddish and Russian, Yiddish and Polish, etc. It was not before the first decade of the century that the call of Ben-Yehuda and other outstanding contemporaries (since the 1880's) for the revival of Hebrew as a *spoken*, living language, and the crucial efforts of the Hebrew teachers, started to be really effective. Until then, the original mother-tongues, and Yiddish foremost, had been retained in full by the new immigrants, Hebrew being still regarded by various people as primarily a literary language, or as "the Holy Tongue" which cannot be reduced to ordinary speech. Certain fanatics violently objected to its use in everyday life, arguing that it amounts to profaning the Holy Tongue!

However, within a relatively short period (certainly short for such a project), Hebrew *speech* started gaining ground, and before long became the dominant language of the Jewish community in Palestine. The pioneers gave up their native tongues for the sake of creating and establishing the new Hebrew vernacular instead. This was done for both ideological and practical reasons. Chaim Rabin,[11] basing himself on another scholar,[12] states that "the success of Hebrew was assured by the fact that among the immigrant groups which made up the Jewish population of Palestine, no one group had a sufficient numerical superiority to impose its home language on the others."[13]

Numerical superiority is, of course, a necessary but not sufficient condition. The most important factor would be the desire of the people involved, their concerns, aims, convictions, and the like. At certain stages the Yiddish-speaking individuals may have had the numerical superiority to impose Yiddish on the others, if they had really wanted it. But most of them obviously did not wish to use that power for that purpose. On the contrary, they used it for imposing (for ideological reasons) another uniting language--the Hebrew language, the historical language of the Jews; the language in which the Jewish people spoke to its God, as well as to its individuals. In short, the language to which the Jew had the greatest spiritual attachment.[14]

As noted by the sociologist L. Wislavsky,[15] there was a strong trend among the 19th century Jews to get out also of the "linguistic diaspora," and enter a "linguistic monismus." Indeed, for socio-cultural and aesthetic reasons they were sick and tired of the cultural and linguistic diaspora and pluralism, and were yearning for a linguistic unity. This inner tendency combined with the special age-long relation between the Jew and Hebrew when the national revival came into being. And when the need for a uniform language became crucial, even from the practical, pragmatic point of view (i.e. the need for a mutually intelligible language for people who gathered from, literally, all parts of the world), the decision fell upon Hebrew, as the natural choice.

4.4 I have pointed out elsewhere[16] that the switch to using Hebrew in oral communication may have been, in certain respects, somewhat more "natural" for the Sephardi Jews. One of the reasons for it may have been their tradition of learning the Scriptures which included a lot of rote memorization of verses. On the other hand, it seems to be an established fact that members of the Ashkenazi groups were more active and more aggressive in the promotion of the Hebrew revival (but we will not go here into the sociological explanations for it). They were eager to impose the use of Hebrew on themselves and on others, and in a pronunciation which was meant to be the "Sephardi pronunciation."

But having that zeal did not mean that they could really rid themselves from the influence of their original Ashkenazi pronunciation or from that of Yiddish, and by reason of the weight in the population and the prestige which they acquired it was carried over to others too.

Since the East European Jews constituted the dominant element in the new community, no wonder that the impact of Yiddish and of Slavic (mostly through Yiddish) has been rather tangible in the lexicon and idiom, as it has in syntax (e.g. in the use of prepositions) and phonology. Yiddish phonic interference has been decisive in the shaping of contemporary Hebrew phonology (see below), including certain prosodic features (especially intonation). It is also apparent in morphology.[17]

4.5 With regard to Yiddish interference in morphology, I will mention here one instance which has special relevance to our topic, i.e., the use, especially by children, of Yiddish and Slavic (again, through Yiddish) diminutive and affective suffixes: -əl, le, -́ele/-́ale, -́kele/-́kale; (-́ik), -́čik, e.g.: *buba* "doll"--*búbale* "dollie," *ima* "Mother"--*ímale* "Mommy," *katan* "small,"--*katánik*/*katánčik* "tiny," "smallie." Sometimes several elements will be combined, e.g. *katan* + *čik* + *əl* → *katánčikəl* (including basically a tautology), and sometimes even in addition to a genuine Hebrew diminutive, e.g. *katan* "small," *kətantan* "tiny, smallie," *ktantančik* "teany-tiny," as a double-tautology. These constructions are especially liked by children.

4.6 As far as the phonic interference is concerned, Yiddish was definitely, and unavoidably, the major source or cause of interference for the pioneer speakers of the revived Hebrew speech. The revivers of modern Hebrew speech had planned to adopt the genuine *oriental* pronunciation, or as it is generally called, the "Sephardi pronunciation" of traditional Hebrew, which included the realization of the so-called "gutturals," i.e. the glottal stop /ʔ/, the /h/, the pharyngeals /ḥ/, /ʕ/, the alveolar /r/, also gemination of consonants, realization of the shwa /ə/, the emphatics /ṭ/, /ḳ/ (or /q/), which exist in the pronunciation of certain oriental communities, etc. But most of it did not materialize. In effect, the Ashkenazi speakers retained their consonantal system with one exception, i.e. the elimination of the [s] allophone of /t/, adapting the Sephardi realization /t/ → [t] only. But they were more successful in adopting the Sephardi vowel system. Thus, while the vowel system of contemporary standard (informal) Hebrew is now basically the Sephardi one, the consonantal system is basically the Ashkenazi, with the exception of /t/ which lost the fricative allophone and is only /t/ → [t], as in the main Sephardi pronunciation, as mentioned above. The Yiddish background of those speakers certainly had a lot to do with it, alongside the reading tradition of the Hebrew text by the Ashkenazi Jews. They had their effect on certain phenomena in the area of stress too.

4.7 When the revival of the Hebrew speech began, a host of new terms, forms, and ways of expression were required in order to cope with the needs for a complete, normal daily vernacular. Historical Hebrew was rich in the domains of religion, philosophy, poetical expression and the like, but was very poor in the areas of prosaic daily life, in simple interpersonal communication, etc. This had to be provided fast and efficiently.

Most deprived of all were obviously the children and youth who were lacking any Hebrew tradition of games and childhood-folklore in the newly introduced Hebrew speech, and the adults were too busy or "aloof" to really accommodate them with their minimal needs.

5. Nativization of a Revived Language through Children's Speech

5.1 Some students of the revival of Hebrew failed to realize what seems to be a general rule for a revived language, as for a creolized language, i.e., that even if the language of the adults around them is still "hesitant," uncrystallized; even when it sounds somewhat unnatural, as a crude combination of old and new, archaic and modern--even then, the children who were born into this language in the new linguistic community accept it as a complete tool for communication, like any other language. And behold, while the adults may still stutter and stammer, unconsciously "translating" from their original native language, and the like, the children manage to use it more freely and more fluently, like any other native language. As we shall see later, the language of the children also crystallized as such, i.e., as a self-contained system even before the newly (re)created adult language did.

5.2 How is it possible that children who acquire a new language, which was just created, or recreated, by the adults, can speak it more fluently and can make of it sooner a crystallized system than the initiators?

Obviously, it is possible, and there is really nothing paradoxical about it. As mentioned above, for the bilingual (or multilingual) adults, Hebrew was not a native language. It was usually acquired as a "second language," or additional language, either at the Hebrew school in their home country, or after their arrival in Palestine, while the first language acquired by them was Yiddish, or Russian, or Polish, or Arabic, or Ladino, etc. And there is a difference between first-language acquisition and second-language acquisition (also between early childhood bilingualism and adult bilingualism). Moreover, in our case, the adults revived spoken Hebrew on the basis of the enormous literary heritage in Hebrew. Their acquaintance with the various "sources" and layers did not always make things easier. It often created problems of selection between "competing" synonyms, morphological patterns, syntactic structures, etc., and it turned out that the richness and excessive variation of the sources impeded, in a way, the crystallization of the general language. Besides, the adults had their home language at their disposal, and could always resort to it, or draw upon it, whenever they needed or wanted, which was not the case with the children.

But the first native children were confronted with a different situation, the natural situation of first-language acquisition. Actually, they came to modern Hebrew only equipped with their innate capacity for language acquisition. As soon as they were exposed to some corpus of it, they started deriving (like any first-language learner or early bilingual does) a theory about the language in question, a grammar of the language.

5.3 The problem of first-language acquisition may need some further explanation. As humans, we are endowed with an innate capacity for language acquisition, any language, not a particular language. And as soon as we are exposed, as babies, to the sounds of a human language around us, we start "working" with that material, creating internally a "theory" of the language that we hear. As soon as we have internalized a set of rules, we start using them and testing them by producing utterances according to this theory, predicting new forms and combinations beyond the corpus presented to us. If our utterances are accepted, all right; if we miss--we modify them and retest them, and so on. In fact, the mistakes that the child makes due to the so-called "false analogies" are the best indications of this process, and of his power of abstraction which enables him to perform abstract operations such as "extracting" a theory of a language, or to make a grammar.

This process of first-language acquisition through trial and error goes on and on for several years, while the child internalizes the essential theory, the rules of the basic speech patterns of his community language. In an established speech community with crystallized speech patterns, the language of the children will eventually conform to that of the adults, and will come very, very close to it. We don't just copy the speech of the adults, or use their performance as mere clichés, but rather induce their construction rules in an intelligent way. We develop a linguistic competence which serves us in our generating or producing new utterances.[18]

Also, we do not really reproduce exactly the same constructions and combinations that we have heard, in their entirety, and this is perhaps one of the major reasons for internal linguistic change in the speech of individuals, and by multiplication--in that of a community, and this is an important point. All those little deviations, all those little idiosyncrasies, or peculiarities of the idiolects, add up gradually, and are multiplied with use and distribution, with density and time, and in due course they become more and more different from the original model, and more and more established in their new form, until another process of change will take place.

This is in the case of a well-established speech tradition. In the case of a less established speech, in a somewhat less crystallized linguistic environment, all processes are accelerated, and as in our case, the young speakers are usually given more latitude and flexibility, more freedom and opportunities not only for original creations, neologisms and "innovations" of various kinds, but also to maintain it for a longer period, within the framework of the new children-and-youth-cultures that they forge. As a rule, the less heeded and observed and challenged children are, while they speak, and the more independent and spoiled (and one might say arrogant) they become (which is quite common in an immigrant, uncrystallized "melting-pot" society) --the more they are tempted to create and innovate on their own, and the more they succeed in maintaining it and carrying it with them to subsequent stages of their development, as individuals and as groups.

Obviously, there was more in common between the different individually newly created "speech habits" of the adults than one would expect (although each of whom may have relied on somewhat different written "sources" than his colleagues and created his idiosyncratic "eclectic continuity" of Hebrew), since the fact is that the children all over Palestine came up with basically the same native language. Then, through the special ways of interaction between the children, the density of children's "generations" (see below), child folklore, etc., they succeeded in creating before long a more or less uniform, crystallized language, wherein processes of regularization prevail, and exceptions are reduced to a minimum.

5.4 However, one important link was omitted from the previous description, and it should be added now. We spoke about the prolonged problem of the adult revivers of modern Hebrew in consciously forging the language, and on the "simple" and "quick" solution of the young native children. The missing link is, of course, that of the slightly older children, i.e., those children who were presented with Hebrew and had to switch to it not at infancy, but during their school age.

Let me add a brief sketch of the background. Both aspects of the revival, the national-political and the linguistic , date back to the early 1880's, but as I have stated elsewhere, it was not until close to the end of the first decade of the twentieth century that Hebrew became the language of the home and of the masses. Until then, for 25-30 years, Hebrew was spoken only in about ten homes, and was otherwise confined to the grade school. Why grade school? Because the first Hebrew high school was established only in 1906 ("Gymnasia Herzeliyah" in Jaffa-Tel-Aviv). So, Hebrew speech was used and propagated in the context of the school. The parents, by and large, continued using at home their native language, but the teachers tried their best to bring about the revival of spoken Hebrew by introducing it into the classroom, and inasmuch as possible also to the schoolyard. Thus, the first zealous Hebrew teachers undoubtedly have the lion's share in the realization of the dream of the Hebrew revival.[19]

5.5 But those teachers were a handful. Perhaps the most significant aspect of the process of the revival was carried out by the children. They were the ones (and by definition could be the only ones) who turned Hebrew into a native language. To be sure, the nativization of Hebrew could not start with the generation of the adult revivers themselves, but with their children. Theoretically it had to be done by their yet unborn children, but in effect it got off to a good start with the school age children who constituted the link in between. They carried it out from the classroom into the schoolyard, and from the schoolyard onto the outside playground, or the street corner, where they continued their games, and from there into the street in general as well as to the house. And since the homes at the beginning were not Hebrew at all, the children were those who created the Hebrew environment there, demanding from their parents that they speak Hebrew with them, and often teaching them too. That is, the children often became the teachers of their parents, and their younger siblings, which is not an uncommon phenomenon in an immigrant home, except that here the "dominant" language itself was not yet in real existence.

5.6 For the first school children, who were technically bilinguals (with the language of the home chronologically the first language and Hebrew the second), through constant use of the new language at school and outside it, Hebrew became a near-native language. This process started even before the turn of the century. It reached its peak during the first decade of this century, at which time Hebrew spread to the infant stage and started becoming a full-fledged native language.

This process was facilitated through the following developments: First, the first generations of children who were at school in the 1880's and 1890's started their own families mainly in the first decade of this century, and for them it was but natural to bring their infants up on Hebrew. Second, the second wave of immigrants (the "Second 'Aliyah"), consisting mainly of the idealistic "workers,"[20] were more Hebrew conscious and were more ready to bring up their children in Hebrew. Third, and perhaps the most important factor, certainly for quite a while during the initial period, was the example which those Hebrew-speaking schoolchildren set for their younger siblings, including the infants at home, and the younger friends on the block."

5.7 This brings us to one of the most important aspects connected with our discussion, i.e., the impact of one child on another, especially of the older child on the slightly younger one, and so on, in creating a children's culture (certainly, a new one), which is very relevant in our case.

First of all, let me introduce an extension to the concept of "generation." Adults conceive of generation as a 20-25-30 year span. But also the children refer to something like a "generation," which boils down to more-or-less a school year. Up and down the line, the difference between, say, a second grader and a first grader, then a kindergarten child, etc., is comparable in some respects, at least in the child's judgment, to that of a 'generation' among adults. An advantage of several years may give a child, especially a leader type, enormous authority and prestige among the younger ones: his power will be envied, his behavior will be followed and his speech habits will be imitated.

In this way, a special tradition of children's lore and language will be going on under the surface of the adult culture, handed over from one generation of children to the other, almost unheeded by the adults, and rather independently of them. The children determine, by and large, the "seasons" for the different games, i.e., when they start and when they end, and in what order, etc., which is transmitted from one generation of children to the other in a very admirable way. There are always some members in the children's community (e.g. the "leaders" on the blocks) who remember the time for the different games, and who preserve the rules of the games, the nomenclature and all the lore that goes with it, and the like, and thus maintain the continuity there. Indeed, all of it is part of children's life beneath the threshold of adult life.

5.8 In my judgment, this is what took place in Palestine too, i.e., while the adults were busy mainly in creating the new land and in forging the new Hebrew society, the children were quite free to forge their own children's culture. This included the development of a new folklore, new games and speech habits which, as would be expected, did not conform to the classical forms prescribed by the normativists. They accomplished it through extensive "regularizations" or "simplifications," for instance in the domain of the verb,[21] massive borrowings especially from Arabic in the language of games and absorbtion of interference from other languages, for one reason or another. We cannot discuss here all aspects in detail, but would like to elaborate on the contribution of the first generations of the Hebrew-speaking children (within the initial bilingual setting of the Hebrew revival) to the development of the Hebrew "language of games," through borrowing from Arabic and other extensions.[22]

6. Linguistic Continuity and Creating a Hebrew "Language of Games"

6.1 As one might expect, a highly inflected language like Hebrew would provide, especially in the various areas of morphology, both inflection and derivation, more opportunities and challenge to level irregularities, and inconsistencies, to "normalize" patterns and to uniform paradigms; to regularize the system of expansion and derivation, and to establish more consistent morpho-semantic oppositions and proportions, and the like.

Naturally, uniformization which is quite common in living languages disfavors irregularity and divergence. Akin to this are the so-called "false analogies," which are actually not so "false," but refer in many cases to extensions of rules and the like ("legitimate analogies") based on the child's intuitive understanding of the language, especially when the latter by themselves seem "inconsistent," in one way or another.[23]

It usually takes a long time in an established language for such creations to crystallize into permanent changes (traditionally called "analogic changes"), since living, established languages have their ways of resisting, and at least slowing down, this process. It seems to me that this too is accomplished by the very system of linguistic continuity. Linguistic continuity, as it was implied from the foregoing, is obviously dependent on the children, who have their own ways of transmitting linguistic as well as other traditions. Yet, in an established language one may say that the adults "control" it to some extent, mainly owing to the density of the generations of native speakers of the language, i.e. of both older and younger who have gone through the mill. There is usually not too much in the language of the children that was not experienced just one generation before by their parents, including the important area of the language of games (and this does not refer to lexicon alone!), although neglected and forgotten as soon as one reaches adulthood. Of course, there are always developments in the language, from one generation to the other, but the linguistic changes are usually mild and slow, within such a period, in an established language. They may be very much accelerated under the pressure of the urgent needs of the speakers in a newly created language.

6.2 In the case of a newly created or revived language, and within a new society and culture, there are at the beginning certain domains in which there is really no linguistic continuity, because there was nothing to continue. All had to be started from scratch.

Among the most important and crucial areas of this kind, and of great relevance to our discussion, are those of childhood experience in the new setting, of childhood lore (folklore), of childhood games, and the like, and the expression thereof in the new language. Almost all of that special realm of childhood play and fun (which I am tempted to call "the children's world of Sabbath and Holiday"), with the appropriate verbal interaction in the new language within the new setting, was "terra incognita" for them. The children themselves had to create it, since the adults could not have experienced it in Hebrew in the Diaspora, before immigrating to the Land of Israel. The language there was different, as the climate, traditions, and interests were different. Besides, childhood and childhood fun in the Jewish Ghetto were short-lived affairs.

6.3 The main tragedy of the Jewish children in the Ghetto (depicted in several novels of the period) was that they were deprived of a normal happy childhood, and, indeed, one of the ills which the new Jewish life and society in Palestine were expected to remedy was just that. It was one of the dreams of the new parents to restore the lost childhood to the Jewish child, to raise him in freedom and to give him more happiness and opportunities than those that were provided to his predecessors in the Ghetto.

This was certainly a kind and noble thought, but as might have been expected, some parents overdid it, providing their children with too much freedom and spoiling. Of course, this by itself would be of no concern for us here,[24] except that this social phenomenon also had linguistic implications: the general, perhaps excessive, freedom was also conducive to special freedom in linguistic creativity--self-creation according to the rules of the language (as conceived by the young speaker), as well as borrowing.

6.4 The situation can be connected in part with the fact that after all we are speaking of an immigrant society, with all that it usually entails, sociologically and linguistically: rapid destruction of the old way of life and slow development of a new one; abolishment of social frameworks; extraordinary widening of gaps between the generations--the young adapting faster to the new life, and consequently developing tendencies of excessive independence, lesser regard for parental authority, even some arrogance, etc. The younger generation usually also acquires the language of the new country faster and better, and if they are young enough, they escape the problem of the foreign accent, and the like.

What was special about the children in the Israeli immigrant society was their significant linguistic contribution to the emerging modern Hebrew which would not normally be the case in other immigrant countries.

6.5 It would not be fair to say that the adults had shown no concern at all for the children's games. Certain attempts at designing new Hebrew games for them were definitely made by some well-intentioned teachers. But apparently they were not attractive to the children. Some of them were probably too artificial or too dull, and sounded "bookish" and too "adultish," like some of the first so-called "children's songs" which were devised for them.

Children don't go for such nonsense. They like a healthy authentic children's game, not anemic substitutes. And above all, they were anxious to play, and were not willing to wait for "appropriate Hebrew games" to be devised for them, nor were they ready to wait for Hebrew terms to be invented for them.

Ben-Yehuda's older daughter, Yemima (died a few years ago), told me in an interview in 1958 some interesting things about her childhood experience (in the 1880's and 1890's): "We spoke with mistakes upon mistakes ...," noting that she had not known "grammar." (She was, of course, referring to formal or normative grammar, which was not the business of the young native child!) She added: "We spoke Hebrew--the main thing was that we speak, and that it will spread, and that finally Hebrew will be spoken." Then she commented that the Russian Jewish immigrants knew grammar, "but their children learned the language from the children outside, during games, and the parents had no time to correct them." In other words, we have here a direct evidence of a key witness to the period as to the significance of games for the spreading of the language, how children learned the language from other children, who did not know "grammar." But they were those that initiated native speech in Hebrew. And another interesting point: while the other parents did not correct their children's speech because they "had no time," she says about her father: "Dad did not correct, because he was afraid that we won't speak ... [we played] in a Hebrew full of mistakes, but he did not correct us, lest we say 'why do other children play in other languages without being corrected?!'"

The children naturally realized it too. For some time they used to come to their parents in the middle of a game to ask for Hebrew terms, but this is not a normal thing to do. Children do not like to interrupt a game for Hebrew terms, certainly not wait a while (sometimes hours, or days, or even weeks) until terms will be dug up or invented, when they were available to them from their friends by straight borrowing, or by some spontaneous translation ("loan translation"), or by derivation, and the like, which they could carry out by themselves on the spot. So they did, and thus introduced into the language an enormous number of forms (through borrowing, loan-translation, compounding, derivation of nouns from verbs and verbs from nouns, "contamination," and other processes) which not only affected the lexicon, but also the phonology, certain balances in morphological patterns, semantic ranges, and syntax as well. We describe the various aspects in other studies. Here we wish to concentrate on the effects of borrowing into the language of games.

6.6 As mentioned above, children's games are part of children's culture which is basically an independent culture, transmitted mostly from older child to younger child, rather than from father to son. And in the matter of games children certainly appreciate more the authority of the older child, the leader on the block, than that of the parents and other adults. In a way, one might speak of the children as a class, mysteriously united against the (international) tyranny of the adults.

No wonder that as soon as the children of the first influxes arrived in Palestine they made contacts with the veteran children in the neighborhood who possessed a more or less established game-culture. The fact that it involved in many cases direct contact with Arab children and the Arabic language evidently constituted no real problem. And before I go on to analyzing the related sociolinguistic solutions by the children, let me say a few words about the socio-political aspects of the relations between Jews and Arabs in Palestine.

In spite of the instability in the nature of the relations between Jews and Arabs in Palestine, affected by the political fluctuations (friendly-indifferent-unfriendly-hostile), contacts of Hebrew-speaking citizens with Arabic did not diminish. As mentioned above, there were Oriental bilingual Jews whose home language was Arabic, and hence Arabic was native for them, as there were others who acquired it later as a second language.

Palestine was not divided into two cantons, one for Jews and one for Arabs, or the like, but it was inhabited by both peoples, in either mixed or neighboring localities. There were several "mixed," bi-communal cities wherein Jews and Arabs either lived in separate neighboring quarters, or dwelled together in the same quarters, such as Jerusalem, Haifa, Jaffa (+Tel-Aviv), Zefat, Tiberias and for some also Acre, Hebron, and other places. The same applied to numerous Jewish villages or settlements which had neighboring Arab villages, e.g. Petaḥ-Tikvah, Zikhron-Ya'akov, Rosh-Pinnah, etc. All of these places provided ample opportunity for language contact between Hebrew speakers and Arabic. Inasmuch as children's games are concerned, naturally the mixed cities mentioned above and Hebrew villages which were adjacent to Arab villages played the crucial role.[25]

7. Borrowing from Arabic and Resulting Interference

7.1 The contacts between the children of the two communities (in harmonious playing in times of peace, or in competitive games and children's "wars," whether oral or manual, in times of tension) have had great significance for the domain under investigation, i.e., that of the language of games, and of childhood lore in general. It has also affected various aspects of modern spoken informal Hebrew, and to some extent also formal (and even literary) Hebrew. I might add here that the boys were apparently more active than the girls in those contacts and borrowings, so that some distinction between boys' speech and girls' speech may be justified. This would apply not only to the choice of games and to the lexical items used in each, but also to derivative aspects (e.g. derivation of verbs from nouns), reinforcement of certain phonological trends which deviate from the normative, and, needless to say, the "four letter" domain, cursing, etc. (which accompany any "healthy" game), an area in which traditional Hebrew was very poor.

7.2 In discussing borrowings from Arabic two other instances come to one's mind, i.e., the elements borrowed from Arabic into Hebrew during the long period of the "Golden Age" in Moslem Spain (especially 10th-13th centuries), when Jews were very creative in Arabic too; then the aforementioned "learned" words which were carefully and scientifically adapted by scholars like E. Ben-Yehuda, David Yellin and others, mainly from literary Arabic.[26]

But we shall concentrate here on those elements which were borrowed spontaneously by the young speakers from Arabic dialects in Palestine since the 1880's.

7.3 As mentioned, the children of the first newcomers to Palestine, who were mostly from East Europe, borrowed not only from the Arabic children, but also from Jewish children of the veteran population who used Arabic and Judeo-Arabic dialects as their vernacular, as they may have done also with other children who were originally speakers of Ladino or Yiddish.[27] At the same time, they turned to "self-creation," involving independent derivations, extension and "regularizations" of patterns (sometimes involving the so-called "false analogies"), and the like. In this way, hundreds of lexical items were borrowed from Arabic dialects, as a kind of "cultural terms," in addition to transfer of idioms and other usages, whether through direct or "outright transfer" or "loan-translation," etc.[28] In the same way, also Hebrew phonology and syntax were affected.

7.4 Borrowing begins, of course, with the individual bilingual, as interference effects begin with his idiolect. It will usually be multiplied by the number of bilinguals involved, and their "collective" impact on the general (recipient) language will be further reinforced when followed by other speakers, especially monolinguals unfamiliar with the contributing language.

It was stated by Haugen that for any large-scale borrowing a considerable group of bilinguals has to be assumed,[29] which was initially the case in modern Hebrew. But that statement needs some qualification, i.e., that it is usually a necessary condition initially. The crucial job of consequential interference which has a penetrating and lasting effect on the borrowing system is carried out, in my opinion, subsequently by the essentially monolingual and the very poor "bilinguals" who cannot keep the systems apart.

7.5 Since it is a case of an emerging language, some of the interferences remained undisturbed with the speakers through youth and even adulthood, and with the new groups of fresh adults who were accustomed to those speech habits, they entered into general circulation.[30]

7.6 Let us have some sampling of the Arabic and "Arabicized" loans, each case followed by a brief analysis, before moving on to deriving some general conclusions about the effects of that child-bilingualism. Let us start with the games.

The lexical list in this category is quite comprehensive. It is probably richest in the case of the game of "marbles." It involved hundreds of terms concerning the material of the "marble," its size, color, texture, roundness, and the like. Then, terms in connection with playing with it, e.g. the ways of holding (the grip) and throwing it, forms and degrees of hitting, and missing; varieties and sub-varieties of games with marbles which involve different ways and shapes of arranging the marbles on the ground; rules for conducting the various games, preparing the ground before and during the game, etc., etc. Scores of those terms were borrowed from Arabic!

Although girls would sometimes play some mild games with marbles too, the real heated marble game was the domain of the boys. They would play it for hours and hours, excited and tense, and it is hardly necessary to add that it was very often accompanied by interjections, heated discussions, exchanges of "compliments," quarrels and the like--and most of it was usually richly flavored with Arabic elements too.

In short, the game required an extensive vocabulary of precise terms for items involved (nouns) and for their description (adjectives), for their functioning and the ways to operate them (verbs), etc. It was also accompanied by a variety of special idioms and syntactic structures under the impact of Arabic.

7.7 Even the basic terms for designating the "marble" are illustrative of a variety of linguistic processes involved. The round "marble" may be made of rock or marble (now a collector's item), clay, glass, even metal. Most common were the clay and glass ones.

There were basically three terms, gul/ǧul [džul] and balóra, the first two used to refer mostly to the clay "marbles," while the last--to the glass ones. In the meantime also the clay marble has practically disappeared, and gul/ǧul became synonymous with balora. The difference is now basically a geographical rather than a semantic one (i.e., they are in complementary distribution from the geographical point of view): around Haifa and the North, balóra; in Jerusalem mostly gul-gúla, and in the Tel-Aviv area, mostly ǧul, but also gúla and bandora (see below).

Let us start with /balóra/. In the Arabic original it is /ballu:ra/, i.e. with gemination of the /l/ [balló:ra],[31] a form which was used in parts of Palestine and the adjacent Arab countries of Syria and Lebanon. In other places it was rather /bannu:ra/ (see below).

Not only the Arab children would pronounce it [balló:ra],but also the Jewish Arabic-Hebrew bilinguals (i.e., the Jewish children of oriental, Arabic-speaking ancestry). However, the predominant Ashkenazi (European) Hebrew-speaking children, those who had a very limited or little knowledge of Arabic, and who did not have gemination in their Hebrew phonology, adapted it to their system and pronounced it /balóra/ (and mostly with a "uvular" /r/, rather than the alveolar in Arabic). But they left the penultinate stress, which is according to Arabic phonological rules, but violates the formal modern Hebrew stress rules (of the "Sephardi pronunciation"), as in *baxurá* "girl, young lady."[32]

The plural in Hebrew is /balórot/, i.e., with the regular /-*ot*/ ending of the feminine plural, but without the ultimate stress which normally accompanies the /-ot/ ending (as in [*baxurá*:*baxurót*] "girl:girls"). This is probably influenced by the penultimate in the singular [balóra], and coincides with the trend in other borrowed nouns with the unstressed /-a/ ending. The /-a/ ending signals the feminine, except that in genuine Hebrew nouns it is also stressed, as mentioned above.

Interestingly, children below the age of 4-5 years may sometimes say [balorót] with ultimate stress, applying their regular morphophonemic rules.

As mentioned above, there was in addition to *ballo:ra* (also *ballu:ra*!) another common form in Arabic, perhaps even more popular, i.e., *bannu:ra*[33] (and a plural *bana:ni:r*). This form would sometimes be used (switched to) by proficient Arabic-Hebrew bilinguals too (for instance, in the 1950's, in sections of Jerusalem populated by oriental Jews who knew Arabic well), but *never* by the non-proficient.

On the other hand, there were two other variants used by the Hebrew children mainly around Tel-Aviv: *bandúra* and *bandóra*. It is obvious that the "Hebrew" *bandúra* is derived from the Arabic *bannu:ra*, involving a process of dissimilation which reduces excessive nazalization and dissolves gemination, since Israeli Hebrew disfavors gemination:

nn → nd

This was already noted by Haim Blanc too.[34] He states that *bandúra* displays a dissimilation of the geminate sound *nn*, both because of its absence in the Israeli Hebrew phonology and because of "contamination" with Arabic bando:ra "tomatoes."[35]

Blanc was not evidently aware that even the form bandóra itself was in use by quite a few children, especially in the Tel-Aviv area, and even in "islands" in Haifa (where the population was more "mixed"). I have first-hand evidence that many of those speakers actually perceived semantic correlation between the red "roundish" tomato and the round colorful marble, hence the identification of names--bandóra...

Moreover, some of the speakers were "convinced" that bandúra was an incorrect form, and "corrected" it to the "meaningful" form bandóra ("tomato). This is a kind of hypercorrection, with a semantic shift (bandúra → bandóra = "tomato"), superimposed on a borrowed form which had already undergone a process of adaptation (bannu:ra → bandúra), including vowel reduction (u: → u) and consonantal dissimilation (nn → nd). Our next example (ğula) illustrates another kind of hypercorrection (among other things).

Obviously, only a "pseudo-bilingual," i.e., one with a clear deficiency in, or only a smattering of, Arabic could come up with such an identification and a "hypercorrection." We will see later some interesting extensions of "interlingual identifications" (e.g., ná'al avíxa).

We observed a similar process of dissimilation, etc. (of nn - nd), in the form [lağánda] used, for instance, when a marble is thrown far away, way out of the playing area, e.g., in 'af lağánda "It flew to the ğanda...." This expression was quite puzzling to me until it occurred to me that lağánda is a metathesis of the Arabic form li-ğahannam "to hell."[36] The preposition li "to" is adapted to the morphophonemic rules of its Hebrew counterpart, and becomes la; the /h/ is neutralized, since it is very rarely realized in native informal (non-oriental) Israeli speech; and the final nasal is deleted. Thus, the form *lağána* is obtained.[37] It then turns into *lağanda* after the application of the rule: nn -> nd.

And sure enough, Arab children use the corresponding expression *ta:r liğahannam* "it flew to hell" in a similar context. I also heard it from proficient bilinguals, who might combine it in a Hebrew sentence *'af lağahánnam* "it flew to hell."

The proficient bilingual of Hebrew-Arabic knows the word *ğahannam* from other contexts too, and it is therefore very unlikely that he would metathesize *liğahannam* ("to hell") to *lağanda*. This could have been created only by speakers of Hebrew who heard it only in this context and did not know its exact meaning anyway. After having been in use for some time among such speakers, it would be transmitted to succeeding "generations" of children as an integral term of the Hebrew language of games. It is conceivable that after being in circulation for some time, even native Arabic-Hebrew bilinguals could no longer recognize its origin and they might start using it too. This is, then, one of the ways for metathesized "ignorant" loanshifts to be fed back to proficient bilinguals, and to become part of their usage in the borrowing language too (in this case, Hebrew).

All three forms, *balóra*, *bandúra*, and *bandóra*, have the feminine ending /-a/, like in Hebrew (although in Hebrew proper this /-a/ is stressed, "ultimate," while in the Arabic it is penultimate). For the plural, the Hebrew speaker will not use the Arabic plural (*bana:ni:r*, etc.), but use his Hebrew morphological and morphophonemic rules, i.e., add the plural feminine ending *-ot*, which will yield *balórot*, *bandúrot*, *bandórot*. Retaining the penultimate stress, instead of the ultimate, will be though in violation of the formal Hebrew stress rules. But Hebrew child language is full of such penultimatizations in loan-words. As mentioned, even native Hebrew words, which normally have the stress on the ultimate syllable, may become penultimate and even antepenultimate (which never occurs in formal Hebrew), in the language of games. A few examples should suffice:

ríšon "first" (masc.) (normally rišón)
šéni "second" (masc.) (normally šení)
šlíši "third" (masc.) (normally šliší)
revíʼi/révi'i "fourth" (masc.) (normally revi'í)

And in the feminine: rišóna/ríšona "first" (fem.) (normally rišoná), etc.

One may say that this counting is often connected with chanting, which does not favor ultimate stress, but it also appears in words that are not chanted (e.g., kláfim "cards" and prásim "picture prizes" that were mentioned above). On the other hand, almost all the terms borrowed from Arabic are penultimate, including the corresponding ordinal numbers: 'áwwal "first" (masc.), tá:ni "second," etc. This may be more than a mere coincidence!

In other words, it is quite possible that the "penultimatization" of the Hebrew language-of-games is due, at least in part, to the impact of Arabic.

In this process, the proficient Arabic-Hebrew bilingual may be as much responsible as the other, because it does not involve or manifest ignorance in one language or the other as in the previous cases.

7.8 The other terms for "marble," gul/ǧul, gúla/ gulá/ǧúla (which originally referred mainly to clay "marbles") display other interesting processes of borrowing and interference.

Which of these variants is conceived as "genuine Arabic" and which as Hebrew?

Let us start with a vivid description by one of the foremost native Israeli novelists (born around 1920), Moshe Shamir, within a delightful chapter about the children's game of marbles.[38] It reads as follows: "Take between your fingers, for instance, that roundish slippery object which is (already) called nowadays *gula*, in the Hebrew language, but in those days we still used to call it plainly *ǧul*, in the Arabic language, if it was made of clay, and *bandura*[39] (also, in the Arabic language), if it was made of glass."

Before analyzing his statements, let me quote a few lines from a conversation with a ten-year-old girl (in Haifa, in 1958) about the use of Arabic words in the children's vernacular. When she pointed out that *ǧalekh* is an Arabic word, I asked her: "How do you determine that a word is Arabic?" She answered: "... I guess... As a rule, a word with /ǧ/, and with /ʕ/, is Arabic--this is what determines..."

At another point in the lengthy conversation with her, I asked her:

--Do you think that *gúla* is Arabic?

--*Gúla*--No! *Gúla* is in Hebrew!--she replied.

--Have you heard the form *ǧúla*?

--*ǧúla* is in Arabic!

Her statements and criteria, then, coincide with those of Mr. Shamir's (in spite of the thirty year gap), i.e., that *ǧúla* is taken to be Arabic because of the sound /ǧ/, which is not part of the native phonemic inventory of modern Israeli Hebrew, whereas *gúla* is conceived as Hebrew, because it has /g/ rather than /ǧ/.

The peculiar thing about *ǧul*/*ǧúla* is that it does not exist as such (nor as *ǧull*/*ǧulla*) in any major Arabic dialect, while surprisingly enough, *gull*/*gulla* (*gulle*) is the standard pronunciation, not only in Egyptian Arabic (where classical /ǧ/ → [g]), but in all other Arabic dialects which I have examined so far, especially in those where /ǧ/ is realized as [j] (affricate [dž]; or by some as [ž]), not [g].[40]

This raises a few questions.

--If in all Arabic dialects the pronunciation is with /g/, rather than /ǧ/, how did the /ǧ/ creep into the speech of the Israeli children?

--Evidently, they themselves introduced it.

--Who are "they"--the proficient bilinguals or the pseudo-bilinguals (or monolinguals)?

--Obviously the latter, since the former knew very well that in Arabic it is gull/gulla (gulle).[41]

--Why did they introduce it?

--This is actually a hyper-correction. They wanted to make sure that this word, which they suspected was borrowed from Arabic, really sounded Arabic! In their innocent mind, the identification mark of Arabic is the /ǧ/, not the /g/. They were afraid that their colleagues who borrowed it directly from Arabic had already made the change (ǧ -> g), so they wanted to restore to it the "original" Arabic sound--therefore they changed it "back" to /ǧ/--and ended up with *ǧula*... It was therefore quite amusing to hear some pseudo-bilinguals show off with their "knowledge" of Arabic by pronouncing it not only as *ǧula*, but even with gemination, as *ǧúlla*.

On the other hand, through another process of interlingual identification, they identified */gúla/* with the genuine Hebrew word *gu(l)lá* (which may also mean "ball," e.g. on a pillar), and therefore both of the above mentioned witnesses, and many others that I have interviewed, maintained that *gula* was Hebrew...

I should like to return for a moment to another aspect of Mr. Shamir's statement, i.e., to his "historical" observations. According to him, earlier in the history it was called "plainly *ǧul*, in Arabic," and only later was introduced the form *gula* which is Hebrew. Well, Mr. Shamir picked up history from his own childhood days (i.e., in the 1920's and 1930's). But if we go back to the children of the first influxes (around the turn of the century), who made the first direct contacts with the native speakers of Arabic (both Arabs and oriental Jews), they undoubtedly started with gúl(l)a, and only those who obtained it from them second-hand changed it to ǧúla, out of ignorance, to give it a more Arabic flavor....

7.9 Children's borrowings, especially those that we might call "second degree borrowings" (i.e. direct or indirect borrowings by the non-proficient bilinguals), often bear a special flavor of innocence and naivety, even when they are slangish forms, vulgar terms and downright profanity. This can be easily concluded from their semantic extensions and shifts, as well as from their interlingual identifications, and the like. It goes without saying that processes of "depluralization,"[42] and "degenderization,"[43] and the like, which are commonly mentioned in the literature on bilingualism and interference between language in contact,[44] were quite common in our case too, as were those of "contamination" or "hybrid creation," of euphemism and "semantic raising," and the like.

Here too, several representative examples should suffice for our purposes: ábu "the father of." It is usually in the construct state, except for connotation no. 3, where it is in the absolute state.

Following the Arabic it is used (1) for denoting "the father of" in compound proper names, e.g. 'abu-bakr "Abu-Bakr" (lit. "the-father-of-Bakr"). (2) for designating "ownership, possession of ...," e.g. 'abu-gull "the owner of a marble," i.e. one who gained a marble in the game (all in Arabic); or abu tne:n (Arabic) "the possessor of two," referring to one who gained two marbles, or two other items in a different game, and so on. Incidentally, it was quite customary to use Arabic numbers too, which means that almost all "real" players of marbles, and a few other games, had to know to count in Arabic, at least till ten, as part of the game requirements (which by itself did not imply "bilingualism"). It is interesting, though, that one who had no "kills," "the father of nothing" was not transferred in full from Arabic (*'abu ṣifr* "the father of zero"), but resulted in a compound, "hybrid creation,"[45] using the Arabic *abu*-"father of" and the Hebrew *éfes* "zero," i.e., *ábu éfes* "the father of zero." If you wanted to know how many marbles were already gained by your opponent during any individual game, you would ask him *ábu káma ata* "the father (owner) of how many [are] you?" where *abu* is the element borrowed from Arabic and the rest being Hebrew. This, again, corresponds to Arabic, word by word (and may be a translation thereof), but not the entire expression was borrowed "alive" from Arabic.

Now, what is interesting here is that in Hebrew the term *abu* was used not only for boys but also for girls, which is an instance of degenderization.

Another development took place later, in the 1950's, when *abu*-started to be combined also with Hebrew numbers, e.g. *abu-šnáyim* "the father of two," replacing the Arabic "*abu tne:n*," etc.

(3) A semantic shift in the use of *abu* by Hebrew speakers (not shared by Arabic speakers) soon took place when the semantic range of *abu* was extended from the ownership of gains to the gains themselves, to the "loot." Thus, if you have some gained marbles, and you are "hit" by another player, he will demand *ten li et ha-abu šelxa* "Give me the *abu* of yours," i.e., your "loot." This special use was limited to children's games.

7.10 But the use of *abu* + Noun became quite productive, especially when the appended noun was in Hebrew, rather than in Arabic. It started with constructions like *ábu-árba'* "the father of four [eyes]" (used as a derogatory nickname for one who wears glasses) which was adopted from Arabic *'abu 'arbaʕ*.

Since "four" in Hebrew and Arabic sound "alike," the Hebrew word *eynáyim* "eyes" was soon added to that nickname *abu árba(ʕ) eynáyim* "The father of four eyes." By the way, it was used for girls too--which is another case of degenderization.

Then, there was another nickname, *abu miškafáyim* "The father of spectacles" (*miškafáyim* is "spectacles" in *Hebrew*). Now, there is a parallel expression in Arabic too (*abu na..a:ra:t*), and the question is, whether it is a loan translation from Arabic or an extension of the productive construction *abu + Noun* developed by the Hebrew speakers themselves.

To be sure, if the first is true--then it should have been initiated by proficient bilinguals who know both languages well and could safely translate "useful expressions" like that from one language to the other. However, if the second is correct--it could have been done by either kind (perhaps more likely by the non-proficient bilingual). What is the truth?

A closer examination (and comparison with other instances which I encountered in this context) will reveal that, as a rule, translations of this kind are initiated by the *proficient* bilinguals, mostly when they have to communicate with those who are not acquainted with "the other language" (in this case Arabic) as they are, when they are afraid that a "nice expression" will be lost on them. Moreover, pseudo-bilinguals in such situations would do their best to retain the borrowed expression, perhaps to show off a little. And it should be stated here that the tendency to show off with the knowledge of Arabic was quite strong among the Ashkenazi (European) descendants whose home language was *not* Arabic, which is quite understandable. This tendency was less common among the Oriental Middle Eastern Jews who were usually proficient speakers of Arabic--some did not need it, and others did not want it, especially those who may have preferred to assimilate among their "prestigious"

Ashkenazi brethren. Yet there were quite a few speakers of "Sephardi" (Oriental) origin who were very proud of their heritage and would proudly retain their Oriental pronunciation of Hebrew, and at the same time not conceal their knowledge of Arabic. But they were far from being a majority.

Naturally, once a translation of this kind is initiated by a proficient bilingual, it may enter into the general circulation and become part and parcel of a new language tradition, and as such be used by anyone, but, again, it must have *started* with a proficient bilingual! And there are other examples to support it.

As a productive construction *abu + Noun* where "Noun" can be supplied by either Arabic or Hebrew, the form *abu miškafáyim* would have been produced by either kind. The extent of the productivity of this formula can be more fully appreciated from the fact that young Hebrew speakers with only a fragmentary knowledge of Arabic would sometimes substitute "Noun" with *Arabic* words which may not be used at all by native Arabic speakers in that construction... It is, therefore, quite possible that *abu miškafáyim* was produced as an instance of a secondary impact of Arabic which provided Hebrew with a formula *abu + Noun* rather than the primary one of straight translation. Naturally, such a case has some significance for the general theory of bilingualism too.

7.11 An amazing development is represented in the related form *avi-arba-eynagim* which I heard from some children. The special thing is not so much in the fact that *abu* was *translated* into its Hebrew equivalent *'avi-* (which is the formal construct state of *'av* "father"), but that this *formal* construct-state was used at all, since the children like to use the (Aramaicized) form *ába* for "father, dad," rather than *'av*, and then obviate its construct-state form by using the periphrastic construction *aba šel*...

"father of..."

I might have been inclined to view the latter case as an inconsequential use by some "formally, or classically minded kid" who resorted to this use, if I had not noticed the use of *aba* by the children in the inflected form too! But this requires some explanation.

In Biblical Hebrew, the possessive is expressed almost exclusively by inflecting the noun, adding the possessive pronominal suffixes according to person, gender and number, e.g. *sus* "horse," *susi* "my horse," *susxa* "your (masc. sing.) horse," *susex* "your (fem. sing.) horse," etc. In post-Biblical Hebrew we find also some use of the preposition *šel*,[46] in the proper inflection, e.g. *ha-sus šeli* "The horse of mine" parallel to *susi*, etc. Classicists prefer the Biblical method; in informal modern Hebrew it diminished greatly; in children's language--it has almost disappeared.

Why did it disappear in child language! We do not want to invoke here the much debated principle of "least effort," but it is clear that it is simpler to use a system where the nouns remain in the absolute state and only the preposition *šel* is inflected, than inflecting the nouns themselves, which involves a host of morphological patterns and morphophonemic changes (rules), in both the inflection of the nouns with the possessive pronominal suffixes and in the use of the construct state. For this reason, the latter is avoided too, through the use of *šel* as mentioned above.

This has been the prevailing trend. And all of a sudden we hear not only *aví arba eynáyim* (not: *ába šel arba eynáyim*), but also *'éved avíxa aní*?! "your father's servant am I?!" (when asked to do some service to someone), involving both a construct-state and an inflection not *ha-'eved šel aba šelxa ani?*! "The servant of the father of yours am I?!," or in the curse *naal avíxa* "your father's shoe!" What is the rational?

Apparently all of it was influenced by Arabic: "Am I your father's servant" is a straight translation from a similar Arabic expression (*xadda:m abu:k anɛ.*) which has the same syntactic structure and with the same word order,[47] and the etymology of two of the components is very close. No wonder that *avixa* is inflected too, like the Arabic *Abu:k*.

As for "Your father's shoe!" as a curse, this is borrowed from Arabic too, through a process of "contamination" and "hybrid creation" and "concealment," as it often happens in slang, especially in a bilingual setting. The corresponding colloquial Arabic curse is (*yin al*, or) *'in al abuk* "[May He] curse your (masc. sing.) father" (remember *abu-*"father"). As mentioned above, Hebrew had no living tradition of cuss words. The adults could perhaps dig up some classical curse, or resort to their Russian, Yiddish, etc. The first Hebrew speaking children preferred to make extensive use of the rich Arabic cursing vocabulary. Many cuss words remained as loan words in Hebrew. Some, like the one under consideration, merited also loan translations and other linguistic processes, as we shall see in this case.

'insal abu:k was, then, borrowed (alongside other cuss words, games terms, etc.), and through assimilation in the Hebrew phonology it sounded more like *in(')al abuk*. Soon some "blending" came in,[48] in the form of *'in(ʕ)al avíxa*, i.e. translating the part of "your father" into Hebrew, and in the inflected (formal) form *avíxa* (not *ába šelxa*)! It is obvious that it was done under the influence of the corresponding Arabic form *abu:k*. This also allowed the "proper" use for gender and number too, e.g., *'in(ʕ)al avix* to feminine singular, etc. In this manner, Arabic contributed to the use of the neglected inflection in the noun!

A subsequent development was in the association of the "Hebraized" form in(')al (originally a verb) with the Hebrew noun *ná(')al* "shoe," and, as a matter of fact, in a complete interlingual identification, which produced strange "curses," like the following (which cannot make sense without knowing their Arabic origin): *ná'al* *avíxa* *bezug* *na'aláyim* "your father's shoe for a pair of shoes," and *ná'al* *avíxa* *bezug* *na'aley* *iméxa* "your father's shoe for a pair of shoes of your mother," and the like. This "identification" too should have been initiated by the non-bilingual, who did not know the exact meaning of *'inʕal* in Arabic.

Even without going into further detail, we can see how Arabic influenced not only the domains of play words and cuss words, but also some processes in Hebrew morphology, phonology, etc. and how this case may be useful for the general study of the processes of language interference in child bilingualism.

One can take it for granted that the children did not know, in most of the cases, the exact meaning of the cuss words they used in the heat of the game, following the pattern of their Arab neighbors. They needed something "powerful," and the stranger sounding a word in this area is, the more magic and power it may have. Therefore such words and expressions are not usually translated as a whole. They may be metathesized, blended, substituted in part by a similarly sounding morpheme or word in the borrowing language, and the like, but not translate it in full. If children understand the exact meaning--then its use in the borrowed form serves as a "cover" (euphemism), to some extent; if they don't know the exact meaning--then all the magic is in the strange sounds, which one would not like to change.

Let me mention one instance of profanity which was obviously not understood by the children. A most common expression in Arabic is *kus* *emmak*... "Your mother's womb..." This was, of course, transferred by the native Arabic-Hebrew bilingual into their Hebrew speech, and was immediately picked up by the other Hebrew speaking children. That the latter obviously did know the meaning of the key word because they extended it to *kus abuk* "your father's womb" as well, on the pattern of the aforementioned expressions about the father *in'al abuk* → *n'al abuk* → *naal avixa* (Hebrew), which could be extended to the mother too.

Apparently what such fragmentary bilinguals do is that they try to make full use of their limited speech samples by applying their general construction rules to that linguistic segment too, and thus come up with constructions which are either unacceptable to the native speaker of the other language, or that are semantically impossible (like in the last instance). But we don't want to explore here the entire domain.

For students of the development of slang I might add the following data: the original form of "your mother's womb" after integration into the Hebrew phonology sounded like *Kuséma* (the final consonant dropped and the gemination eliminated). This form soon triggered a "contamination" (often for concealment) with the Hebrew word *kus(s)met* "spelt," on the one hand, and with *kos soda* "a glass of soda!" where the Arabi "key word" was associated with the "similar" Hebrew word *kos* "glass," and a new original, rather than hybrid (veiled), curse came into being: *kos sóda* "a glass of soda!"

8. Before moving on to some conclusions let us have a quick look at some phonological, derivative and morphological, and syntactic effects on Hebrew through the children's bilingualism and their language of games.

We mentioned before the forms *ǧul* and *ǧula* which were "hypercorrected" by the Hebrew children, instead of the Arabic (unique) use with [g], because the *ǧ* has become an identification mark for Arabic in the eyes of the innocent Hebrew speaker. They had in active use such words with *ǧ* as *ǧora* "pot, a hole in the ground for the game of marbles" and terms in the game like *be-ǧaxes/ bli ǧaxes*, *balóra xalánǧit* (for a brand new, beautiful marble), *min ǧoz* (see below), *franǧi* ("European"), *abu ǧílde* (nickname), and many others.

The idiom *min ǧoz* "from the pair" (between the two), produced an interesting semantic shift. It was originally used as an announcement on the part of a player who was aiming at two adjacent marbles, i.e. that if he hits either one or both that it would be o.k. Now, if he missed both, his colleagues would usually exclaim *lo ba-min ve-lo ba-ǧoz* "neither in the *min* nor in the *ǧoz*," i.e., he hit neither the one nor the other. Thus, these two words *min* "from" and *ǧoz* "pair" were taken to be referring individually to the marbles involved.

In connection with *franǧi* we might mention forms like *fasfus* "tiny,"[49] *fistuk* "peanuts," *falafel* "faláfel, a spicy oriental food with a lot of *filfil* 'pepper,'" *fálta* "slip" and the verb derived from it *hitfalet* "slipped," and many others. The reason for mentioning this group is that all of them violate the basic Hebrew phonological rules of the complementary distribution of /b g d k p t/, especially of /b k p/ which are generally preserved to date in formal Hebrew. I will not discuss here the entire rule,[50] but mention only one aspect of it, i.e. that in initial position and after a consonant only the plosive allophone may appear, and in final position, following a vowel--only the fricative allophone may be used. In our examples all initial and post consonantal positions were occupied by [f] as in Arabic rather than by [p] as required by Hebrew phonology. The same applies to euphemistic forms which were apparently created by the children through multiple contaminations between Arabic, Hebrew, and Yiddish[51] (details elsewhere), e.g. *fisfes* "to miss, fail," *figšeš/fikšeš* "to miss," *fikfek* "to miss" and "secondary" and "tertiary" derivations and mock derivations, such as *finleaux* "fail," and the like.

On the other hand, in forms like *xabub* "darling (masc.)," *ya xabibi* "oh my darling (masc.)," *rizdeb*, *rizdub* (see below), *akrab* "scorpion" (*akrav* in Hebrew!!), we have the stop allophone instead of the fricate!

What all that means is that penetration of so many violations of the basic Hebrew phonological rules do not just "remain in the lexicon." In due course they affect the entire phonological system, which in my judgment was the case here too, i.e. children will often do the same thing in indigenous Hebrew roots too (as we described in other studies).

As for morphology, while the inflection of the noun was practically bypassed by the children, as mentioned above (by resorting to the construction *Noun + šel-*, etc.), the children were very active in the inflection of the verb (of course, with very substantial changes which they introduced)[52] as they were in the processes of derivation.

We will mention here only one aspect--the derivation of verbs from borrowed nouns, singling out a few instances which affect the Hebrew root system.

We have just mentioned some effects on Hebrew phonology in forms like *hitfalet*, *fisfes*, *rizdeb*, *fikšeš*, which according to strict Hebrew phonology should have been *hitpalet*, *pispes*, *rizdev*, *pikšeš*, etc. Some of those examples illustrate another point, i.e. derivation of verbs from nouns and from quadriliteral roots rather than triliteral.

We mentioned before that the flexion of the noun was almost completely abandoned by the children. This means, among other things, that borrowed nouns could remain not bothered by the Hebrew morphological patterns and paradigms (flexion), not even by the stress system, except for the suffixing of the gender and number morphemes. As mentioned above, the borrowed nouns retain the stress on the original syllable and the singular feminine and the plural endings are appended without any significant morphophonemic changes. Thus, the Hebrew noun became an open category.

The verb, however, is a dynamic one. It maintains its conjugations and its inflected paradigms. It assimilates whatever it absorbs, by means of its paradigms. In this way, the verb could not only "Hebraize" foreign roots, but also conceal their foreign origin, except that the children "spoiled" it to some extent by leaving certain alien phonological features (see some examples above) and by their excessive derivation of quadriliteral roots from borrowed words. It is true that historical Hebrew had some quadriliteral roots before, but it was basically a triliteral system. By deriving large numbers of quadriliteral verbs, especially from borrowed words, the children contributed significantly to the change in the appearance of the Hebrew verbal system and the ratio between the triliteral roots (which is a typical Semitic feature) and the quadriliteral (and even five-radical) roots.

We mentioned several examples. We might add timbel "to stupify" from tembel "stupid, a fool" (Arabic tanbal from Turkish tembel), and the most popular verb xirbén "to mess up, fix, etc." which is derived from xerbón "excrement, a mess, a fix, defeat, etc.," which in turn is derived through a contamination with the Arabic word xara "excrement." All of those forms, like many others, have later moved on to the language of the youth and adults.

There are scores of other interesting cases, but we will mention here only one more type of interference from Arabic which concerns the syntax of the verb and verb phrase constructions: following the Arabic, the children will usually say caxak al- "laugh at (lit. laugh on)" instead of the preferred form caxak le... (lit. laugh to...), and similar uses.

Of special interest are, for instance, constructions with the verb axal "to eat" which are influenced by Arabic, e.g. axal makot "he ate blows (i.e. was hit, spanked)"; axal xerbon "he ate a defeat, failure (got in a fix)"; axal xazuk--in the same meaning, xazuk being an Arabic word meaning here like xerbon "failure," which was one of the original uses borrowed directly from Arabic, then inspired the creation of Hebraized and Hebrew constructions on this pattern.

8. Summary

We have seen how modern Hebrew came into being as a revived living language, the sociolinguistic background, the contribution of various factions and factors to its development, and the role of the children in it too.

In that context we studied the processes of the nativization of the language by the children, how they created mainly by themselves a new "language of games," how they borrowed terms and expressions from Arabic, and how they initiated various processes of Arabic interference in Hebrew, some of which spread beyond the confines of the children's language of games, into the general language, and affected Hebrew phonology, derivation and morphology, syntax and semantics.(Note also their contribution to Hebrew slang.)

From the point of view of bilingualism we have seen again that national bilingualism does not necessarily imply individual bilingualism. However, given a special sociolinguistic setting (like in the case of a revived language, where children may feel a special deficiency in their special areas of language and lore and fun), certain reasons for borrowing may arise, and certain patterns of interference evolve.

Contacts between languages really starts with the contact between individuals, which in turn may be multiplied and reinforced by the number of people involved. However, as we have seen in our case, only some effects of borrowing and interference are due to the proficient bilinguals (e.g., loan translations), whereas other processes and effects (e.g., loan-shifts, hybrid creations) are due to the activities of the innocent "fragmentary bilinguals." The actual impact of the latter on the borrowing language may be greater than that of the former, so that, from a certain point of view, there is an inverse correlation between proficiency and interference.

Children's bilingualism in an immigrant society has its own features, particularly in the case of a revived language. Here they are especially free to create in their own way, borrow in their own way, and nativize the language in their own way. While transmitting it to the densely succeeding new generations of children their innovations and borrowings go into greater circulation and sooner or later they may affect the entire linguistic system, whether the adults realized it or not, as was in our case.

Footnotes

[1] He is called by many "The Reviver of Hebrew Speech," but there were others who objected to it. See details in A. Bar-Adon, "Processes of Nativization in Contemporary Hebrew," in On the Revival of Modern Hebrew, ed. A. Bar Adon (forthcoming), and The Rise and Decline of a Dialect (A Study in the Revival of Modern Hebrew), The Hague: Mouton (in press). Also "S. Y. Agnon and the Revival of Modern Hebrew," in Texas Studies in Literature and Language, 1971/72 (in press).

[2] Cf. S. Morag, "Planned and Unplanned Developments in Modern Hebrew," Lingua, 8 (1959): 248, fn. 1.

[3] Cf. E. Haugen, The Norwegian Language in America: A Study in Bilingual Behavior, Philadelphia, 1953.

[4] Cf. U. Weinreich, Languages in Contact: Findings and Problems, New York, 1953; Joshua A. Fishman, "Language Maintenance and Language Shift: The American Immigrant Case within a General Theoretical Perspective," 1964 (mimeo); id., "Language Maintenance and Language Shift as a Field of Inquiry," Linguistics, 9 (1964):32-70; id., "Domains of Language Choice in Multilingual Settings," 1964 (mimeo); "Yiddish in America: Socio-Linguistic Description and Analysis," International Journal of Linguistics, 31 (1965), No. 2, Part II, 94 pp.; id., Language Loyalty in the United States, The Hague: Mouton, 1966, and other studies.

[5] There were numerous other languages used by sub-groups of the Jewish component and by small minority groups of the rest of the population, but we do not need to deal with them here.

[6] Strictly speaking, this term of Sephardim should apply only to Jews of Spanish origin, as the name Sepharad suggests. Sepharad is the Hebrew name for "Spain," and, indeed, the descendants of the original Spanish Jews (who were expelled from Spain in 1492) did mostly speak Ladino, i.e., Judeo-Spanish.

[7] Things have changed again in the 1950's, following the forced mass emigration of Jews from various Arab countries and their immigration to Israel. Yet, the Israeli culture is still predominantly "Ashkenazi," European.

[8] In the Arab sector there were fewer people who acquired Hebrew. Cf. fn. 25.

[9] E.g., W. F. Mackey, Bilingualism as a World Problem, Montreal: Harvest House, 1967.

[10] See fn. 26.

[11] In "The Role of Language in Forging a Nation: The Case of Hebrew," The Incorporated Linguist, January 1970.

[12] A. N. Poliak, The Jews in Palestine at the End of the War, Merhavia, 1945, 27-34.

[13] Quote from Rabin, ibid.

[14] Interestingly enough, even as late as 1943, the struggle against Yiddish by Hebrew zealots was still going on. Following an act of violence against a Yiddish paper, on June 29, 1943, a hot debate was conducted by the leaders of the Histadrut (The Workers Union), and one of the leaders of a leftist Party (Mr. M. Ya'ari) made a typical statement: "I have the greatest love for Yiddish, but I object to it in the Land of Israel."--See Korot, Ed. J. Olitzky, Vol. 2 (1971), No. 6 (18), pp. 16 ff.

[15] Hevley Tarbut ("Culture Pangs"), Jerusalem: Mossad Bialik, 1946. See especially p. 24.

[16] It is treated in detail in a forthcoming study on the History of the Revival of Modern Hebrew.

[17] Cf. H. Blanc, "Some Yiddish Influences in Israeli Hebrew," in U. Weinreich (ed.), The Field of Yiddish, II, The Hague: Mouton, 1965, 185-201.

[18] Cf. Noam Chomsky, Aspects of the Theory of Syntax, Cambridge, Mass.: M.I.T. Press, 1965; id., "The Formal Nature of Language," Appendix A, in E. Lenneberg's Biological Foundations of Language, New York: Wiley, 1967, 397-442, and in other publications (listed in A. Bar-Adon, below). Also, J. J. Katz, The Philosophy of Language, New York: Harper & Row, 1966 (esp. pp. 240-283); David McNeill, "Developmental Psycholinguistics," in Smith and Miller (eds.), The Genesis of Language, Cambridge, Mass.: M.I.T. Press, 1966. More details and further bibliography in A. Bar-Adon, "Primary Syntactic Structures in Hebrew Child Language," in A. Bar-Adon and W. F. Leopold (eds.), Child Language: A Book of Readings, Englewood Cliffs: Prentice-Hall, Inc., 1971, pp. 433-72.

[19] See details in A. Bar-Adon, The Rise and Decline of a Dialect: A Study in the Revival of Modern Hebrew, Mouton (in press).

[20] Among them most of the recent or current leaders of the State of Israel; e.g., the former Prime Minister David Ben-Gurion, the late President Yitzhak Ben-Zvi, the present President S. Z. Shazar, and many others.

[21] See details in my Children's Hebrew in Israel, 2 vols., Jerusalem, 1959 (in Hebrew, with English summary), and "Analogy and Analogic Change as Reflected in Contemporary Hebrew," in Proceedings of the Ninth International Congress of Linguists, ed. H. Lunt, The Hague: Mouton, 1964: 758-63.

[22] For details on nativization see my "Processes of Nativization in Contemporary Hebrew."

[23] Examples and details are included in "Processes of Nativization...," and "Analogy and Analogic Change...," mentioned above.

[24] I might add for the sociology student that it was normalized by the subsequent generations of native parents.

[25] We mentioned in footnote 8 that there were more Hebrew-Arabic bilinguals than Arabic-Hebrew bilinguals. In other words, Arabs made a lesser effort in acquiring Hebrew (and this is not the place to analyze this sociolinguistic phenomenon), but there definitely were some who did it, e.g. the children of the Arab village of Ja'uni in Upper-Galilee which was adjacent to the Hebrew village of Rosh-Pinnah. Those children even learned it formally for some time at school from a Jewish teacher, in addition to playing with their Hebrew neighbors.

[26] As Ben-Yehuda himself stated in the Introduction volume to his *Thesaurus* (p. 10), he made a special effort to liken the Hebrew roots to those of Arabic. For details cf. I. Avineri, *Kibbushey Ha'ivrit badorenu*, Marhavia, 1946; M. Piamenta, "The Influence of Arabic on Ben-Yehuda's innovations," *Leshonenu La'am*, 12 (1961): 150-58 (both in Hebrew).

[27] It should be noted that many Yiddish-speaking children of the veteran population (the "Old Yishuv") of the Holy Cities in Palestine knew Arabic. In effect, many Jews in the Old City of Jerusalem, in Zefat, and Tiberias, and perhaps elsewhere, were pretty fluent in all the three major vernaculars, i.e. Arabic, Ladino, and Hiddish. Then Hebrew was added to them, until it captured the hegemony.

[28] Cf. U. Weinreich, *Languages in Contact*, New York, 1953, p. 471.

[29] "The Analysis of Linguistic Borrowing," *Language*, 26 (1950), p. 210f.; in revised form in *The Norwegian Language in America*, 1953, Vol. 2, 383f.; cf. *Bilingualism in the Americas*, 1956, p. 14 and subsequent studies. (Cf. his quotation from Hermann Paul's *Prinzipien*, 1886, Chapter 22.)

[30] In the 1940's there was a special flourishing of a Hebrew style flavored with an excessive display of Arabic words and Arabicized structures, used especially by the young men of the "Palmakh," the underground commando. But we cannot elaborate here on this beyond stating that it was essentially, in my opinion, an extension of the special Hebrew of game and fun of the children, as described before.

[31] /balloːra/ is probably connected with classical Arabic /billawr/ "beryl," and the /l/ is therefore the original sound, rather than /n/, in /bannuːra/ (see below).

[32] But this coincides with a host of forms in the Hebrew "language of game" which were made penultimate by the children, e.g., /klafím/ "cards" (used by adults) vs. /kláfim/ "cards" used by children; /prasím/ "prizes"--/prásim/ "pictures, and similar little 'prizes,' found in chocolate boxes, etc."

[33] It seems, that the form with /l/, not /n/, seems to be the basic one (cf. fn, 31).

[34] "On the Arabic Elements in Spoken Israeli Hebrew," *Leshonenu La'am*, 6 (1954/55): (No. 1): 6-14, (No. 2): 27-32, (No. 4): 20-26. In Hebrew.

[35] *Op. cit.*, No. 2-3, pp. 28-29.

[36] Arabic *ǧahánnam* may be derived from Hebrew *geyhinnóm* "the Valley of Hinnom, Hell," but the lay speakers are, of course, not aware of such a possible etymology.

[37] And indeed we heard *laǧanna* too. Cf. A. Bar-Adon, "Studies in the Lexicon of the Israeli Children," *Leshonenu La'am*, 18 (1966-67), No. 2, esp. p. 64. In Hebrew.

[38] In *Atidot*, A Quarterly for Youth, Summer 1956 and Fall 1957, pp. 5-10.

[39] The Hebrew text is not vocalized, and the same symbol /w/ stands for both [u] and [o]. Hence, one may read it either [bandúra] or [bandóra].

[40] Most importantly, similar evidence is found also in the aforementioned study by Haim Blanc, who is a great authority on Arabic dialects. He emphasizes that in all the Arabic dialects known to him, the actualization is [g], not [j]. See *Leshonenu L'am*, 6 (1954/55), No. 2-3, pp. 27-28.

[41] By the way, an etymological survey leads me to the assumption that this Arabic word was influenced by Turkish....

[42] A borrowed word in its plural form may be conceived as a singular in the recipient language. When it has to be pluralized in the latter, its original plural marker will be disregarded, and a new plural marker will be superimposed on it; e.g., "*Eskimos*" in Hebrew are *eskimosim*, where the Hebrew plural marker -*im* was appended to *eskimos*.

[43] I.e., disregard for the original gender; cf. the use of "*abu*-" below.

[44] Cf. Weinreich, 1953; Haugen (1950); (1953); (1956), which were mentioned above, and in his new concise essay on "Bilingualism, Language Contact, and Immigrant Languages in the United States: A Research Report, 1956-1970 (mimeo 1970-71), to appear in *Current Trends in Linguistics*, ed. T. A. Sebeok, Vol. 10, The Hague: Mouton. We could mention also Vildomec, and others, but it is not our intention here to give a full bibliography.

[45] As Haugen calls it. See Haugen 1956, etc.

[46] Originally a relativization marker. Cf. Y. Hayon, "Relativization in Hebrew: A Transformational Approach," an unpublished Ph.D. dissertation, The University of Texas, Austin, Texas, 1969. A Bar-Adon, "Primary Syntactic Structures in Hebrew Child Language," in A. Bar-Adon and W. F. Leopold, *Child Language: A Book of Readings*, Prentice-Hall, Inc., 1971, 433-72, esp. p. 436 f. See bibl. in f.n. 57 there.

[47] There is a similar expression in Yiddish too, but in different word order, which add support to the original derivation from Arabic. Yiddish perhaps provided reinforcement.

[48] In my opinion, it started here too with the proficient bilinguals, although the etymology of *abuk* could easily be found by any Hebrew speaker. I think that the form *'i(ʕ)al avíxa* was also used more by oriental Jewish children, like in the case of *abu miškafáyim*.

[49] Originally meaning "a flea; a wart." It is often used with the aforementioned Hebrew diminutive -*on*, i.e. *fasfuson*, and even with one or more of the diminutive and endearment morphemes borrowed from Yiddish, e.g., *fasfusončik*...

[50] Which I do to some extent in *The Rise and Decline of a Dialect*.

[51] Naturally, the interference of Yiddish is also part of that child bilingualism, but we are now concerned mainly with the Arabic effects.

[52] See details in our *Childrens Hebrew* ... and "Analogy ..."

AFTER CHILDHOOD, THEN WHAT?
AN OVERVIEW OF ETHNIC LANGUAGE RETENTION (ELRET) PROGRAMS IN THE UNITED STATES

by

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AFTER CHILDHOOD, THEN WHAT?

AN OVERVIEW OF ETHNIC LANGUAGE RETENTION (ELRET) PROGRAMS IN THE UNITED STATES

The recent development of bilingual education programs for those groups whose native language is other than English has lent a new interest to the concept of ethnic language retention. The question has been raised whether bilingual education (i.e., education through the medium of English together with some other language) is primarily a transitional device to help out children of our ethnic minorities until they become fluent in English, or whether one aim is the retention of the vernacular even after (and in a sense independent from) the acquisition of fluency in English.

If the Bilingual Education Act is intended to conserve our language resources, then measures for the retention of the vernacular, or ethnic language, should be built into our bilingual programs. And measures should be taken not only within schools where formal bilingual programs are in progress, but in all schools having ethnic speakers, and particularly in those schools where foreign languages are offered which are actually the ethnic languages of a number of the students. Thus time will not be wasted in teaching students things which they already know, and the ethnic speakers will make a very real contribution by making the language come alive for monolingual students interested in acquiring it.

For much of our foreign language teaching is ethnic oriented. It is not by accident that Spanish has been widely taught in the

Southwest, that French is popular in New England and Louisiana, or that Portuguese is taught in New Bedford, Massachusetts. Efforts directed towards ethnic language retention are certainly not new in the United States (most of our immigrant groups have formed organizations for this purpose), nor for that matter is bilingual education. German-English bilingual schools,both public and private, flourished during the nineteenth century and up until the First World War. Spanish and French were also used in bilingual schools in New Mexico and Louisiana respectively. Yet during the period after the First World War public school bilingual education ceased completely and the idea of any effort towards public school assistance in programs designed to enhance ethnic language retention was so completely absent from the national scene that Brault could claim in 1962 that his "Bowdoin Institutes" (the first of which took place in 1961) sponsored by the National Defense Education Act in order to train teachers and prepare materials for teaching French to ethnic speakers, "marked the first time in history that an ethnic group was accorded federal support in its struggle to preserve its linguistic heritage."[1] The rebirth of bilingual education in our time seems to have taken place in 1963 at the Coral Way School in Miami in response to the needs of Cuban refugees of that area, though the program has been so successful that monolingual speakers of English have been included and have benefitted from it. Foreign language instruction in the United States has, however, for the most part, ignored the needs of the ethnic speaker, and with the exception of a few materials to be mentioned later on, there is nothing commercially available for teaching ethnic languages, and there is no organized effort or formalized structure within which the teaching of ethnic languages can be planned and discussed.

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[1] Gerald J. Brault, "The Special NDEA Institute at Bowdoin College for French Teachers of Canadian Descent," PMLA, LXXVII (September, 1962), p. 1.

Considering the fact that in the United States there may be nearly 20,000,000 people with some knowledge of an ethnic language,[2] this seems incredible, particularly since our federal government evidenced its belief that people with a knowledge of a foreign language constitute a valuable resource by making foreign language study eligible for support under NDEA. In regard to these NDEA projects, A. Bruce Gaarder of the United States Office of Education has stated that "The Federal Government encourages a multi-million dollar expenditure annually for language development (in both the 'common' and 'neglected' languages) but no part of the effort is directed specifically to the further development of those same languages in the more than one in ten Americans who already have a measure of native competence in them,"[3] (Brault's "Bowdoin Institutes" constituting a unique exception). It is true that Gaarder made this statement before the passage of the Bilingual Education Act and some bilingual programs have attempted to remedy this anomaly. However, more recent studies by Gaarder have been highly critical of many bilingual programs precisely because of inadequate attention given to the ethnic language. In a recent essay on the subject, he points out that in the first seventy-six bilingual schooling projects supported by grants under the Bilingual Schooling Act, there appears to be "such inadequate attention--time, resources, and understanding--to the other tongue, as compared to the attention paid to English that, on the whole, the concept of bilingual education represented by these plans of operation seems to be something less than the legislation and its advocates intended."[4] Gaarder also implies that foreign language teachers should be much more involved in bilingual education than they are by mentioning, apparently as an exception, one program in which this involvement does occur: "Milwaukee sees the importance of uniting its bilingual schooling project with the efforts of its regular foreign language teachers at the high school level, and will offer a history and culture course for both groups of students together."[5]

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[2] Fishman's estimate is that in 1960 approximately nineteen million people in the United States possessed a non-English mother tongue. See Joshua A. Fishman, "The Status and Prospects of Bilingualism in the United States," The Modern Language Journal, XIX (March, 1965), p. 143.

[3] A. Bruce Gaarder, "Teaching the Bilingual Child: Research, Development, and Policy," The Modern Language Journal, XLIX (March 1965), p. 166.

Long a staunch advocate of ethnic language retention, Gaarder has insisted that bilingual education should be something more than simply a transitional device to enable low income groups to become more acculturated. Another outstanding scholar whose work has been primarily in support of ELRET is Joshua Fishman, who has made extensive studies of the linguistic resources of our country, and the tendency towards maintenance or shift among the various ethnic groups. Major projects which Fishman has directed for the Research Section of the United States Office of Education have produced reports such as *Language Loyalty in the United*

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[4] A. Bruce Gaarder, "The First Seventy-Six Bilingual Education Projects," *Monograph Series on Languages and Linguistics*, No. 23, ed. James E. Alatis (Georgetown University, 1970), p. 163.

[5] *Ibid*., p. 173.

States and, more recently, Bilingualism in the Barrio, which deals specifically with linguistic habits of Puerto Rican families living in the New York City area.[6] Some relevant points from this study will be mentioned later. In order to make the climate for ethnic languages more favorable, Fishman suggests the establishment of a "'Commission on Biculturism (or Bilingualism) in American Life' with national, regional and local subdivisions." He also recommends financial and other aid to language maintenance organizations, and of more immediate interest, the "preparation of special teaching materials for the bilingual child" and the "granting of credit for out-of-school language mastery."[7]

The preparation of special teaching materials will be discussed in detail. Granting credit for out-of-school language mastery, however, is also extremely important because of the way our educational system is "credit point" and "basic requirement" oriented. The one way that we as educators can show ethnic speakers that we feel it important that they have kept up their language is by giving credit for competence and not simply for patience. Let us hope that more high schools and colleges will allow competent ethnic speakers to receive credit through proficiency examinations, and that College Board will extend its CLEP (College Level Examination Program) to include languages other than English.

In mentioning scholarly work in ELRET, the name of Einar Haugen should certainly not be passed over. Haugen's The Norwegian Language in

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[6] The first of these was published by Mouton & Company in The Hague in 1966. The second is supposedly available from the Bureau of Research of the U.S. Department of Health, Education, and Welfare (Contract No. OEC-1-062817-0297), though copies are extremely difficult to obtain. Articles from Bilingualism in the Barrio appear in The Modern Language Journal, LIII, No. 3 (March , 1969) and LIII, No. 4 (April, 1969).

[7] Joshua A. Fishman, "The Status and Prospects of Bilingualism in the United States," The Modern Language Journal, XLIX (March, 1965), p. 153.

America provides a somewhat heart-rendering account of how a once vigorous ethnic language has succumbed to external and internal erosion.[8] He has also produced materials for teaching Norwegian. Other scholars whose works are pertinent include Uriel Weinreich, whose Languages in Contact provides a framework for analyzing types of interference.[9] And the Journal of Social Issues devotes its April, 1967 issue to "Problems of Bilingualism" where, in addition to articles by Gaarder and Fishman, there are others by Susan Ervin-Tripp, John J. Gumperz, Dell Hymes, Heinz Kloss, Wallace Lambert and John Macnamara. Lambert's research in particlar has very positive implications for bilingual education and ethnic language retention programs. His experiments tend to show that the bilingual is less bound by rigid norms of a particular group and "may well start life with the enormous advantage of having a more open, receptive mind about himself and other people."[10] Gaarder refers to the Peal-Lambert study of bilingual ten-year-olds in Montreal which gives evidnce that "if the children are equally well educated in both languages, i.e., 'balanced' bilinguals, they are superior in both verbal and non-verbal intelligence to monolinguals."[11] This should give the ethnic speaker a powerful reason for maintaining his bilingual ability independent of the advantages to be derived from the knowledge of a particular language.

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[8] Published by the University of Pennsylvania Press in two volumes, 1953.

[9] Published by Mouton & Company in The Hague in 1967.

[10] Wallace E. Lambert, "A Social Psychology of Bilingualism," The Journal of Social Issues, XXIII (April, 1967), p. 106.

[11] Gaarder, "Teaching the Bilingual Child," p. 173.

although Lambert's experiments should be replicated with language combinations other than French and English.

It is impossible to report here all the findings of scholars which might have implications for ELRET programs. It seems to me, however, that the most important single factor to be gleaned from scholarly research can be stated quite simply and inequivocally, although the implications for teaching will tax the best efforts of material writers and curriculum planners who devote themselves to developing programs for teaching ethnic languages. The factor may be called the "domain stability" concept. That is, an ethnic language will be retained as long as it continues to be the preferred language within certain definite areas of activity. To again quote Fishman, ". . . If a strict domain separation becomes institutionalized such that each language is associated with a number of important but distinct domains, bilingualism can become both universal and stabilized even though an entire population consists of bilinguals interacting with other bilinguals."[12] In my own work with Spanish-speaking groups, I have noticed that the Mexican Americans, or Chicanos, conserve Spanish much better, even after generations of living in the United States, than do the " Neo-Ricans" or children of Puerto Rican parents living in New York and in other large urban areas of the East, because the Neo-Ricans tend to prefer English in all domains and speak Spanish only to older people. A questionnaire which a number of Neo-Rican students filled out for me indicated a preference for use of English among those of their own age group for all purposes. Cooper and Greenfield in examining a group of Puerto Rican background living in Jersey City conclude that "the finding that young people, in speaking among themselves, use English more often than Spanish in all domains, including family, suggests that bilingualism in the community under study is characterized by language shift."[13]

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[12] As quoted by Gaarder, Ibid., p. 172.

The problem, then, for those of us who write materials and plan programs designed to enhance ethnic language retention is whether these materials can be so contrived that they will induce ethnic speakers to stabilize certain domains in which the ethnic language will be used in their daily lives, particularly for groups like the "Neo-Ricans" for whom such domain stability does not appear to exist at the present time. The problem is not a simple one--it will, as I have said, tax our best efforts--yet it is quite possible that there is a good bit that we can do, particularly since our efforts now seem to go hand in hand with the designs of youth organizations among Spanish-speaking groups whose purposes, according to Gaarder, are to acquire an education and to reaffirm their ethnicity.[14] Certain clues as to how to approach the problem may be gathered from *Bilingualism in the Barrio* in which it is pointed out that Spanish does have an important role in the lives of the youth of Puerto Rican background living in the New York area. For example, it is imperative that a boy speak Spanish when he is first introduced to his girl friend's parents--that is, when he is requesting permission to be her formal *novio*.[15] Fishman points out that boys whose command of Spanish is poor look forward to this moment with dread and we can certainly imagine they would be grateful for some pointers as to how to handle the situation. Sample dialogs can be built in to materials, and hopefully, the boy's future *suegro* will not discuss topics on which he is tongue-tied. Also, Spanish continues to be the language of the *piropo*. The ingeniously worded little complement which the admiring male makes to female beauty simply would not come off in English. It has a tradition of its own which depends on Spanish. And Fishman points out that the ability to invent clever *piropos* is highly valued.[16]

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[13] Robert L. Cooper and Lawrence Greenfield, "Language Use in a Bilingual Community," *The Modern Language Journal*, LIII (March, 1969), p. 172.

[14] A. Bruce Gaarder, "Teaching Spanish in School and College to Native Speakers of Spanish," (unpublished draft of report commissioned by the Executive Council of the American Association of Teachers of Spanish and Portuguese, 1971), p. 8.

ELRET materials should, in short, take advantage of community and family relationships and should serve to bring the school and the community closer together. In complementation of Fishman's points, mentioned earlier, Gaarder insists that there should be:

1. new, strong links between what the schools do and what the community is and wants;
2. an end to the attitude of condescension on the part of foreign language teachers toward the language of the folk bilinguals.[17]

Regarding the first point, we might add that positive, understanding efforts should be made to sell the community on the ELRET concept (are they aware, for example, of the results of Lambert's studies on the correlation of bilingualism and intelligence?). Parents who desire that their children keep up the ethnic language often insist that it be spoken in the home. Lacking this, it can be suggested (and such suggestions can be built in to the material) that the ethnic language should at least be conserved in certain situations. A favorite is at the dinner table. If this is accepted good-naturedly, it becomes a kind of a game in which the person who accidentally utters a word in English must pay a fine or do some other type of penance. Additional suggestions related to activities where the ethnic language might be used could involve club meetings, summer camps, and ethnic festivals. The important thing is to have a certain group of activities which will always be carried out in the ethnic language and on which its retention will be anchored. This does not mean that the ethnic language need always be limited to these activities, nor does it even mean, in my opinion, that there is anything wrong with mixing languages in certain domains as long as competence in both English and the ethnic language is assured by the existence of domains in which a single language must be used exclusively. Gaarder is not happy about mixing languages, but I feel that his exhortation that "every effort be made to avoid this mixing of Spanish and English"[18] is a bit too severe, having found in my own personal experience that one of the most enjoyable things about being bilingual is having two languages at my disposal instead of one and in being able to use either of them when in conversation with other bilinguals. It is fascinating to reflect on why certain things are said in one language and not the other. Being able to mix languages is really a bonus for being bilingual.

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[15] Joshua A. Fishman, *et al.*, *Bilingualism in the Barrio*, I, p. 67.

[16] *Ibid.*, I, p. 67.

[17] A. Bruce Gaarder, personal letter, January 28, 1971.

Regarding the second point, since it seems to be pretty much assumed that outside of formal bilingual programs, and particularly at the secondary level, ELRET efforts will fall to the foreign language teacher, the question arises as to what special training such a teacher needs--special courses in methodology of teaching an ethnic language, social problems of minority groups, or possibly more work in applied linguistics with special reference to dialectology? It is crucial that the teacher take a positive attitude toward the ethnic group and its linguistic idiosincracies. For if domain stability is a central concept to ELRET, then a corollary to this is that procedures for teaching ethnic speakers should certainly not imperil domains in which the ethnic language is already used, however imperfectly. In regard to this, Gaarder expresses the viewpoints of the AATSP Committee in the following manner:

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[18] Gaarder, "Teaching Spanish in School and College to Native Speakers of Spanish," p. 16.

> The dialect speaker must be accepted wholeheartedly as and where he is and must never be censured or subjected to pressure simply because he speaks the dialect. The position to be taken is that each style of speaking, each dialect, is appropriate to certain situations, and that the pupil, eventually, is to learn a world standard in order to increase his repertory of speech styles and so increase his versatility and power.[19]

In other words, the ethnic speaker should learn the standard language. But deviant forms should be considered matters of interest rather than matters of scorn.

In making a survey of materials now available, we find very little specifically designed for teaching ethnic speakers in the United States--either in their language or about their language. Bilingual programs often seek to make use of materials produced in other countries where the language is native. Gaarder, however, laments the fact that not enough attention is given to the development and procurement of materials in the ethnic language, and points out that instead, bilingual teachers "are expected in most of the projects to create or assist in the creation of teaching materials in the non-English tongue."[20] Since these teachers are usually untrained in writing materials in any language, the results can be disastrous.

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[19] Ibid., p. 4.

What is being done is mainly at the primary level. The Spanish Curricula Development Center, located in Miami Beach, has been set up as part of a major effort of the Bilingual Programs Branch of the Office of Education, "for the purpose of creating primary bloc Spanish curricula to support Spanish-English bilingual education programs." The Center plans to develop "48 multidisciplinary, multimedia Spanish Curricula kits" for use in the first three grades. In addition to focusing on the language itself, these will include "strands" in social science, fine arts, science, and mathematics.[21] Final completion of these materials is scheduled for August 1974, and they will be available not only to formal bilingual programs, but also "to interested school systems with relevant pupil populations."[22] Ralph Robinett, the director of this Center, had previously worked as director of the Michigan Migrant Primary Interdisciplinary Project which developed special curricula for the children of migrant workers in the state of Michigan--The Michigan Oral Language Series. This included a "Spanish Guide" for use at the kindergarten level.

I might add here that it was my own privilege to be contracted by the Philadelphia Public School System to write ELRET materials in

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[20] Gaarder, "The First Seventy-Six Bilingual Education Projects," p. 167.

[21] Ralph F. Robinett, "The Spanish Curricula Development Center," The National Elementary Principal, I (November, 1970), p. 62.

[22] Ibid., p. 63.

Spanish for the 10-12 grade level. I have not yet received a formal criticism of these materials, though I have been promised one and look forward to it with great interest.

Before going further into the matter of specialized materials for ethnic speakers at the secondary level, it might be convenient first to discuss characteristics of the target groups and typical problems in their language usage. It is not easy to make sharp cut-off points, of course; ethnic speakers differ in their linguistic abilities and many with ethnic surnames may have little or no knowledge of the language. Gaarder lists as minimal qualifications for participation in a program designed for ethnic speakers (in this case, Spanish), "the ability to understand ordinary conversation in the dialect of his parents and their peers plus the ability to follow simple instructions given in Spanish."[23] My comments at this point will be mainly limited to the group I have directly studied--the "Neo-Rican" college freshmen, children of Puerto Rican parents who have been reared and educated in the United States, usually in New York City or other large urban areas for whom Spanish is the language spoken in the home but not at school. (They did not have the advantage of bilingual education programs.) In their use of and attitudes toward Spanish, this group evidences the following characteristics:

1. They control the mechanics of the spoken language quite well (their vocabulary is limited to terms that are common in everyday use);
2. However, they usually prefer to use English among themselves (with an occasional Spanish word or expression thrown in) though most state they would like to better their command of Spanish;

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[23] Gaarder, "Teaching Spanish in School and College to Native Speakers of Spanish," p. 3.

3. Their phonetic habits are characteristically Puerto Rican. That is, there is little evidence of deterioration through contact with English;
4. They can read when required to do so, though they do so slowly and are somewhat hampered by lack of vocabulary.
5. Their spelling of Spanish is very deficient. It is influenced by their pronunciation habits and by English spelling in the case of cognates. They usually refuse to use written accent marks;
6. They are aware of their Puerto Rican heritage, but do not feel they belong to Puerto Rico. As one once said, they prefer to associate "with people like me--Puerto Ricans who come from the United States or New York."

While different groups of ethnic speakers may differ somewhat in regard to some of these points (some, hopefully, will show more evidence of domain stability in the ethnic language), one feature which I feel they all have in common is the lack of ability in reading and writing, which requires special training, as opposed to the development of oral facility, which would come naturally from the environment. This fact has important implications for materials and procedures. Some pronunciation therapy may of course be needed, but basically ELRET materials should not be audio-lingually oriented.

The foreign language teacher at the secondary level, not involved in formal bilingual programs, and seeking guidance and specialized materials for teaching ethnic speakers, will find that such materials are almost nonexistent. A pioneering effort in this area was produced under the direction of Gerald J. Brault during his Bowdoin Institutes, already mentioned, whose purpose was the "formation and professional perfection of our Franco-American French teachers at the secondary level."[24]

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[24] Gerald J. Brault, Livret du Professeur de Francais Franco-Americain (Brunswick, 1962), p. 1.

However, the text, entitled Cours de Langue Francaise destiné aux Jeunes Franco-Americains is not commercially available and is quite difficult to obtain. According to Elphege Roy, founder of the Franco-American Teachers Association, it is used in the largest public high school in Manchester, New Hampshire, and "in a few schools in New England."[25]

Since this is the pioneering effort in the ELRET field, some comments seem appropriate. According to the author, it is designed to be used by students who have already had "six or seven years of French at the Franco-American parochial school," who understand spoken French and who can read a passage of medium difficulty.[26] It consists of thirty units whose format includes a short article, a dialog, an explanation of difficult vocabulary items, pronunciation exercises to correct typical Franco-American or French Canadian errors, oral exercises of the pattern practice type, and translation exercises to and from French. The pattern practice component occasionally attempts to correct errors which are typical in Franco-American although it may simply introduce a verb form or structural feature, with no reference to existing usage. The articles and dialogs involve points of social and historical interest to Franco Americans and treat both French Canadian and French culture. For one who has not actually used the book in question or taught the target group, it is difficult to make a just criticism. Offhand, it seems to resemble a text for teaching French as a foreign language too much, and except for the exercises involving corrections in Franco American usage, a casual glance would lead one to believe that it is exactly that. The extensive use of controlled oral pattern practice so characteristic of the audio-lingual method of foreign language teaching, would seem to be dull and wasteful when dealing with ethnic speakers who already control the basic mechanics of the language, who already understand spoken French and can read passages of medium difficulty.

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[25] Elphege Roy, personal letter, November 8, 1969. Information regarding the text can be obtained from Mr. Roy at 103 Oak Street, Manchester, New Hampshire--03104.

[26] Gerald J. Brault, Cours de Lanuge Francaise destiné aux Jeunes Franco-Americains (Manchester, 1965), p. 7.

Independent of bilingual programs established under Title VII, most of the work done in ethnic language retention has been carried out with the Mexican Americans who appear to be somewhat ahead of the rest of the country in the formalization of ELRET efforts. Consequently, the experiences which they are having need to be observed carefully to determine their degree of applicability to other groups. For example, in June 1969 the Texas Education Agency published an unbound book Español Para Alumnos Hispanohablantes to provide guidance to junior and senior high school teachers of the state in setting up special classes for the Spanish speaking. Although this publication includes sample lessons, it is not itself a textbook, is not sold commercially, and is not made available except to teachers. In the section on "Specialized Classes" it is pointed out that "Some school systems in Texas have been following now, for several years, the plan for accelerated classes" for native speakers of Spanish, and that "The Superintendent's Annual Report for 1967-68 shows 120 school systems which provide separate classes for native speakers of Spanish at the secondary level."[27] There is also a section recommending materials which might be used. These include a number of textbooks used in Latin America for native speakers of Spanish, a few texts produced for teaching Spanish in the United States (particularly in the literature area), and the only two textbooks published commercially (by National Textbook Company) for teaching an ethnic language in the continental United States--Paulline Baker's Español para los hispanos, and Marie Esman Barker's Español para el bilingüe.[28]

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[27] The Texas Education Agency, Español para Alumnos Hispanohablantes (preliminary ed., n.p., 1969), p. 4.

Español para los Hispanos is short and mainly designed to strengthen and correct the student's use of the language at a basic level and the author suggests that it be supplemented with literary texts. There are explanations and exercises designed to teach proper spelling and pronunciation, correct substandard usage, and increase vocabulary, as well as a section on letter writing and on parliamentary terminology.

Marie Esman Barker's text is much more complete. It is divided into twenty-one separate units, each centered about a particular point of linguistic, literary, or cultural interest. The format for each unit usually includes two articles or short stories on the particular topic in question, an explanation of some grammatical point, and a number of exercises involving vocabulary, morphemics, syntax and pronunciation. The book would obviously be very useful at the high school or even at the beginning college level.

However, at this point a word of warning is necessary. Although the titles of these two texts use the general terms hispano and bilingüe, they are so obviously aimed, both culturally and linguistically, at the

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[28] Ibid., p. 159ff.

Mexican American of the Southwest--the "Chicano"--that they are not appropriate for use among other Spanish-speaking groups, such as those of Cuban or Puerto Rican background. The cultural orientation of the articles in Mrs. Barker's text is all towards Mexico and is designed to enhance pride in the Mexican American cultural heritage. From the standpoint of linguistics, while it is true that, for example, Neo-Rican and Chicano Spanish may share certain problem areas because of contact with English, there are also differences derived from corresponding differences in Puerto Rican and Mexican Spanish. In addition the Chicanos, living more in rural isolation and more determined to assert their identity linguistically, have evolved their own caló or Pachuco dialect. Español para los Hispanos, in particular, presents a wealth of pachuquismos and their equivalents in standard Spanish, along with translation exercises involving Pachuco. A sentence such as "Anochi me jambaron mi huacha y todo mi jando" would be incomprehensible to a Neo-Rican.[29]

And so we find that outside of Title VII bilingual programs, almost all formalized ELRET efforts, and the only two commercially available publications, are aimed at the Chicanos. Publishers of educational materials are naturally reluctant to enter a new field unless a demand for the material is supported by a formal curriculum structure. Even within the formal framework of Bilingual Education, it is interesting to note the extent to which the Chicanos are favored. Of the first seventy-six bilingual schooling projects supported by grants under the Bilingual Education Act, fifty-eight are for Mexican Americans.

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[29] Paulline Baker, Español para los Hispanos (Skokie, Illinois, 1968), p. 50.

Sixty-eight of the total are for the Spanish-speaking, nine among these involving Puerto Ricans. It is true that a very few of the bilingual schooling projects which involve Spanish also involve one other language, but even taking this fact into consideration, there are only fourteen of the total seventy-six projects which deal with an ethnic language other than Spanish.[30] The reason for this of course involves the socio-economic status of the Spanish-speaking and the fact that Bilingual Education is aimed at the lowest income groups. Now there is nothing wrong with helping people who are disadvantaged in the socio-economic scale to better themselves by providing them with educational programs more geared to their needs, but if knowledge of another language is really a resource, then efforts should be made to preserve it whether it is found among the lower, middle, or upper classes.

One is amazed to realize, for example, that Italian, the language which accounted for the largest number of non-English speakers according to the census of 1960,[31] and German, which according to one report had the greatest number of speakers as late as 1964,[32] are not even represented in Bilingual Education Programs, and textbooks for teaching Italian and German in the United States make no allowances for the large number of ethnic speakers. Andersson states that as far as his own research can ascertain, "no attempt has ever been made throughout the history of Italian immigration to the United States to instruct Italian Americans in the Italian language."[33] Italian is of course taught as a subject in most universities and in a number of high schools, and ethnicity is doubtlessly one reason why students choose to take it.[34] We can only hope that where a number of ethnic speakers are involved, the perceptive and imaginative teacher can improvise materials designed for their particular needs. One serious problem with Italian is dialectal difference. "Standard" Italian differs quite considerably from the home dialect of most Italo-Americans. Andersson points out that most of the Italians living in the East are from the Neapolitan provinces and from Sicily, whereas those living in the West are from North Italy, and that many Italo-Americans "were not even aware of the great cultural heritage associated with the [standard] Italian language and so they showed no desire to preserve it and perpetuate it."[35] An additional problem which Andersson cites is the negative attitude, particularly among the South Italians, toward formal education in general.[36] At this point, needless to say, their attitude is drastically different from that of the Puerto Ricans, who see formal education as a kind of panacea. Since my own work has been with the Spanish-speaking, it is perhaps somewhat risky to venture an opinion, but regarding the dialect issue, it would seem that where there is a large enough group speaking a single dialect, such as Neapolitan or Sicilian, material could be prepared for that group using comparisons between the dialect and the standard, in somewhat the same way that Paulline Baker compares Pachuco and standard Spanish.

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[30] Gaarder, "The First Seventy-Six Bilingual Education Projects," p. 163.

[31] Theodore Andersson, "A New Focus on the Bilingual Child," The Modern Language Journal, XLIX (March, 1965), p. 156.

[32] Theodore Andersson and Mildred Boyer, Bilingual Schooling in the United States (2 vols.; Austin: Southwest Educational Development Laboratory, 1970), II, p. 22, quoting Seigfried H. Muller, The World's Living Languages: Basic Facts of Their Structure, Kinship, Location and Number of Speakers (New York, 1964).

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[33] Ibid., II, p. 141.

[34] Of the 33,038 total enrollment for Italian in Public secondary schools in the fall of 1968, 6,795 were from New England and 15,610 from the state of New York. See Julia Gibson Kant, "Foreign Language Offerings and Enrollments in Public Secondary Schools, Fall 1968," Foreign Language Annals, III (March, 1970), p. 443.

[35] Andersson and Boyer, II, p. 139.

[36] Ibid., II, p. 140.

In regard to German, we have already mentioned earlier how the First World War brought an end to their vigorous system of bilingual education. Although there are still large German-speaking enclaves, Andersson does not forecast a bright future for them, stating that it is "ironic that we spend so many thousands of dollars teaching German on the higher levels when a continuation of past language maintenance efforts on the part of the German community itself could have supplied us with a rich fund of teachers and educated speakers of German."[37]

There is not time here to discuss each ethnic group separately. Andersson's Bilingual Schooling in the United States gives a brief overview of most of them along with a comment on the status and advisability of bilingual education and ELRET activities. And in my own conclusion of this paper, I can only express again my heart-felt conviction of the need for setting up more formal channels and organizations through which ELRET issues can be aired and discussed within the educational framework. The American Association of Teachers of Spanish and Portuguese has taken cognizance of the problem by devoting two sessions of its last annual meeting in December, 1970 to ELRET, and by setting up a committee of nine members, chaired by Bruce Gaarder, to prepare a report on teaching Spanish to ethnic speakers. In this paper I have frequently referred to a draft of this report, as yet unpublished. And TESOL (Teachers of English to Speakers of Other Languages) through its Committee on Socio-Political Concerns of Minority Groups in TESOL, has issued a position paper as yet not approved by the entire organization, which includes statements to the effect that the teaching of English should be carried out so that minority groups will not sacrifice "in the process of acquisition, at great emotional and psychological cost, their native languages and cultures." The paper further requests that the Committee be made a regular standing committee of the organization and that it have at least one annual meeting aside from the annual national meeting of TESOL.[38]

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[37] *Ibid.*, II, p. 126.

These are good beginnings, but more coordination of ELRET interested groups will be necessary. ELRET may still bring pride and power to ethnic groups who have been neglected. We are standing on the threshold of an era of unparalleled opportunities disguised as insoluble problems in which the dream of America of cultural diversity within political unity may yet be realized. Let us endeavor to exploit the possibilities fully and fairly so that all the strands in out coat of many colors will shine forth in their true brilliance.

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[38] "Position Paper by the Committee on Socio-Political Concerns of Minority Groups in TE SOL, February 1, 1970," TESOL Newsletter, IV (September/December, 1970), pp. 8-9. This paper is reproduced and slightly amended in TESOL Newsletter V (June, 1971), pp. 6-7.

LITERACY IN THE MOTHER TONGUE AND SECOND LANGUAGE LEARNING

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No discussion of child language is complete without a consideration of the special case of a second language acquired as a medium of instruction in the primary school. It is the thesis of this paper that children who are monolingual speakers of a minority language will, in general, learn a second language as a medium of instruction more readily and more effectively if they are taught to read and write their own language first. Several programs whose success support this point of view are described in section 1. Social, psychological, and pedagogical factors that might explain this success are discussed in section 2, as working hypotheses for further investigation.

1.1. Summary of bilingual programs

For some years the Summer Institute of Linguistics, Inc. has been involved in a practical way with literacy in the mother tongue as a tool for second language learning, in the context of bilingual primary schools. SIL has cooperated with the Peruvian Ministry of Education in the establishment of Bilingual Schools in the Peruvian Jungle. The Institute has also provided personnel for the development of a pilot program in Quechua in the Peruvian highlands. In Mexico, members of SIL have produced materials for some of the bilingual projects of the National Indian Institute and the Ministry of Education, and have had some share in the training of instructors ('promotores'). In South Vietnam, SIL is under contract with the South Vietnamese Government and USAID to produce materials and train teachers for the Highlander Education Project. Elsewhere in the world, the Institute is participating in a number of other similar programs that are not yet far enough along for formal report.

1.1. The Peruvian Jungle program. (Ratto 1955, Wise 1969)

Prior to 1953 there were few schools available to Indians in the Peruvian jungle, and those few had very poor results. It was difficult to staff such schools, isolated as they were from 'civilization'. The Spanish speaking teachers had difficulty communicating with their Indian pupils. And the pupils seldom learned more than a mechanical ability to sound out Spanish syllables and to write from dictation. They did not learn to speak Spanish, nor to read it with understanding.

In 1953, a bilingual education program was established for the jungle Indians. Teachers for the program were recruited from among the Indians themselves. In summer courses at Yarinacocha they were taught to read and write their own language, to speak Spanish, and the Spanish primary curriculum to Grade 2. When they reached Grade 2 standard, they were given further training in Spanish and pedagogy that prepared them to begin teaching. Over a period of six years they taught in their own villages during the school term, and attended further training sessions during the long summer vacation. In this fashion they complete their own primary education while in service.

In the village schools, the pupil spends his first two years becoming fluent in reading and writing his own language and in learning to speak Spanish. In his third year he completes the requirements of the Spanish school 'transition' year, which involves reading and writing Spanish. In his fourth year he enters the Peruvian Grade 1. In Grades 1 and 2 he follows the regular Peruvian curriculum, but with diglot textbooks (with a vernacular translation of the Spanish material on each page.) In Grades 3-6 the jungle pupils follow the regular curriculum in Spanish only.

By 1969, 240 Indians of 20 different language groups, who had come through the bilingual program, were employed by the Ministry of Public Education as teachers in the jungle schools. Many Indian children from monolingual communities not only finished the Spanish primary school, but have gone on to secondary school, and in a few cases to university. Others have received vocational training that has fed back into economic improvements in their home villages.

A point of major interest is the success of the program in teaching Spanish. The children in this program enter Grade 3 (the first grade in which Spanish is the only medium of instruction) competetive with Spanish children at this level. It is of great significance that in most cases this competence in Spanish is gained in a non-Spanish speaking community, where the source of Spanish is the school teacher. (Now of course, bilingualism is increasing in the local communities. In many places the present generation of school children are the younger brothers and sisters, or the sons and daughters, of previous pupils who are bilingual through the school program.)

1.2. The Peruvian Quechua Program. (D. Burns 1968, N. Burns 1970)

In the Highlands of Peru, where the Quechua Indians are located, there were many more government schools than in the lowlands. However, no more than 30% of the Quechua children of school age were normally enrolled in school. And the academic record of those who did attend was very poor. The monolingual Quechua children as a rule, learned little Spanish. They tended to repeat the transition year two or three times, and then to drop out in discouragement. The government, in 1965, provided for the development of a five year pilot project for the Quechua, similar to the bilingual program that had proved so successful in the jungle. In 1971 it has been decided to expand this project to the remaining Quechua communities.

The Quechua program is shorter than the program in the jungle. (Perhaps this is possible because the Quechua are more sophisticated, and have more contact with the Spanish speaking population.) The pupils have two years of 'transition'. In the first year they learn to read and write Quechua, and begin oral Spanish. In the second transition year they become independent and fluent readers of Quechua, and learn to read and write Spanish, completing the regular requirements of the transition curriculum. In the First Grade, all materials are diglot, Spanish and Quechua, but considerable attention is paid to the Spanish so that the child is ready for an all Spanish curriculum in Grade 2.

The success of this program can be seen in the reduction of dropouts, and in the fact that the children coming through the bilingual program are all doing work above the average of those in the Spanish schools who did not have bilingual education. The program has not been going long enough to follow any pupil beyond the end of primary school.

1.3. Mexican programs. (Vásquez-Barrera 1953, Castro de la Fuente 1961, Modiano 1968)

In Mexico, government schools taught in Spanish have been available to most of the Indian population for many years. These schools, however, have not effectively taught either spoken Spanish or literacy in Spanish to monolingual Indians. In most Indian communities only a very small percentage of the school age children are actually enrolled in school. The usual pattern for those who do enroll is repetition of the preparatory grade for two or three years, and then drop out without having learned to read more than isolated syllables, and without having learned to speak Spanish. It has been my observation, although I have no statistical studies to prove it, that success in school usually depended on having learned Spanish outside of school--as a house servant in a Spanish home, for example.

The first bilingual program was established in the Tarascan group in 1939 under President Càrdenas. It is reported to have been highly successful, but it was some time before a bilingual policy was spread to other Indian groups. At the present time there are bilingual schools being operated by both the National Indian Institute and the Ministry of Education. Both types of schools use bilingual Indians as the instructors or 'promotores'. The program is less extensive than its Peruvian counterpart. It consists of a single pre-year in which the Indian children learn to speak some Spanish and to read and write their own language before going on to the regular Spanish schools.

Nancy Modiano (1968) reports on the success of the Indian Institute schools in the Tzotzil and Tzeltal languages in Chiapas Mexico. She notes that a significantly greater proportion of students in the Bilingual Institute Schools read with significantly greater comprehension in the national language than pupils in the all Spanish schools.

1.4. The Vietnam Highlander Education Program

he Highlander Education Program in South Vietnam has not yet been reported in the literature, and the following summary is based on private communications from my colleagues who work in the program.

In 1967, USAID and the Sout Vietnamese Government contracted with the Summer Institute of Linguistics, Inc. to provide materials and teacher training in some of the Highland languages, in fulfillment of the government's agreement that the Highlanders were to have three years of education in their own languages. Previous to this project, the schools available to the Highlanders were taught in Vietnamese. Teachers who spoke the Highland languages were often assigned outside their home area so that only rarely did a monolingual child have a teacher that spoke his language. The performance of the monolingual Highland children followed the typical pattern, with low enrollment--especially of girls--repetition of the same grade, and early dropouts with little success in either literacy or language learning.

The Highlander Education Program provides for a pre-year for all Highland children, in which they learn to read and write their own language, to speak some Vietnamese, and to control in their own language some of the content material in arithmetic, hygiene, etc. When they enter first grade, they learn to read and write Vietnamese, they study the content subjects of the regular Vietnamese curriculum from textbooks in their own language, and they review some of the content material in oral Vietnamese lessons. In the second grade all textbooks are diglot, and education is bilingual. In the third grade the pupils move into a monolingual Vietnamese curriculum, except for continued classes in their own language and culture as subjects.

This program is still very new, and war conditions have prevented the careful evaluation of each classroom that would have been desirable. However, favorable results are already evident in increased enrollment, especially of girls, and in lowered repetition rates. Most of the children who enter complete the pre-year in a single year. There are scattered reports that children entering first grade from the pre-year already know more Vietnamese than is usual for children finishing first grade with Vietnamese as the medium of instruction. There are also by-products in community enthusiasm for the program, and a more favorable attitude toward the schools on the part of the monolingual parents.

2. Factors in the success of the bilingual programs.

It cannot be assumed, of course, that the high degree of success of the bilingual programs outlined here means that such a program is a panacea for every multilingual school situation. It should be possible, however, to make hypotheses as to the factors that explain that success, and to use these hypotheses for further observation and research. I would suggest the following as a first approximation of such a list. Social and psychological advantages of the bilingual programs include: 1) community understanding and support; 2) the minimization of culture shock for the child entering school; 3) augmentation of the child's sense of personal worth and identity; and 4) development of the child's habit of academic success. Pedagogical and linguistic advantages of literacy in both the mother tongue and the second language, before the second language is used as a medium of instruction, include: 5) full utilization of the child's fluency in his own language in learning the skills of reading and writing; 6) the contribution to second language learning of focus on the mother tongue (a by-product of literacy); 7) the development of basic concepts for the content subjects, in the mother tongue; 8) the use of reading as a tool in second language learning.

2.1. Community understanding and support.

An outstanding characteristic of the bilingual programs described in this paper is community support for them. There may be several reasons for this. Since beginning instruction is in the language of the monolingual pupils and their monolingual parents, the parents know what the children are learning and can understand what is going on in school. At the same time, oral instruction in the second language pleases the parents that are anxious for their children to learn the prestige language. Furthermore, the instructors are drawn from the local community. In every case, the ideal bilingual teacher is considered to be one who speaks the vernacular as his own mother tongue. It is true that he must also know the second language—but often his bilingualism is via instruction in the second language as part of his teacher training. These people are at home in the community and its culture, and are able to reassure the parents and the community leaders as to the plans and purposes of the school.

2.2. Minimization of culture shock for the child entering school.

One factor in the success of individual children is the minimization of culture shock at school entry. It is probable that most children experience some shock in the transition from the relatively free pre-school environment to the more rigid, formal, structured environment of the school. This shock is especially traumatic to children who are faced with a foreign language and foreign cultural values as well as the strangeness of the school environment. In the bilingual schools described here, the shock is limited to the transition to the school environment. The first classes are taught in the child's own language by teachers who share his cultural values and customs. His introduction to a new language, and to a new set of values, is gradual and is mediated constantly by a teacher who understands his struggle and is sympathetic.

2.3. Augmentation of the child's sense of personal worth and identity.

This point is closely related to the previous one, but is not identical with it. One important element in the failure of children of the ethnic minorities in the schools of the dominant culture is undoubtedly their loss of a sense of personal worth. A child who is punished for spitting on the floor or throwing stones may feel that he is being unjustly treated and rebel, or may learn to conform. But a child who is punished for speaking the only language he knows can only believe that he is inherently bad or inferior—for his language is an essential part of what he is. The teacher who does not speak the child's language has no choice but to insist that he use the dominant language— and so in some measure punishes him for using his own. This subtle alienation of the children does not happen in the bilingual programs which are built on a respect for the child's language and culture. The assurance of his own worth and identity provides a firm base from which he makes the transition into a new language and participation in a new culture.

2.4. Development of the child's habit of academic success.

School failures and dropouts are often blamed on a long history of failure which has led to an expectation of continued failure. The child who fails completely in his early schoolwork is unlikely to become a great success later. Such early failure is nearly inevitable for a large percentage of children who enter a school taught in a language they do not know. In the bilingual schools, however, the child is conditioned to success not failure. Learning to read and write in his own language is relatively easy for him, and this early success leads him to expect—and to obtain—success in the more difficult transition to another language.

2.5. Full utilization of the child's fluency in his own language in learning the skills of reading and writing.

A person becomes literate only once in his lifetime. Learning to read additional languages and scripts after the first one is a matter of enlarging his inventory of symbols and using his literacy skills in the context of a new language structure. He can become literate, however, only in a language that he speaks, as seen in my definition of literacy: That person is literate who, in a language he speaks, can read and understand any thing he would have understood if it had been spoken to him; and can write, so that it can be read, anything he can say. (Gudschinsky 1970)

Goodman (1968) has described the reading process in a way that emphasizes the role of the learner's oral language in reading. In his model, the beginning reader is seen as 1) taking an input of letter shapes, groups of letters, and word shapes, and 2) recoding them as phonemes, groups of phonemes, or word names, 3) mixing this with an aural input-- his knowledge of the language and its patterns--to 4) further recode it as oral speech, which he then 5) decodes for meaning.

The child who learns to read first in his mother tongue can make full use of his competence in the language. He recodes letters and word shapes to the phonemes and words that he already knows and uses; his aural input comes from a native speaker's control of the patterns of the language; and his decoding process is in terms of familiar vocabulary and discourse structure. To extend this basic literacy to a second language is a relatively small task compared with the overwhelming difficulty of learning to read for the first time in an unknown language.

2.6. The contribution to second language learning of focus on the mother tongue.

Learning to read involves some conscious focus on the structure of the language to be read. Minimally, the child learns to focus on the phonemes represented by letters or letter patterns, and on the units represented by orthographic words. In the reading method that I have been developing, the reader is taught to recognize the phonemes of his speech, and the orthographic patterns of the written language, as contrastive substitutions within a pronounceable matrix (syllable or couplet). He uses this recognition for recoding (or decoding) content words. He is taught to recognize the functors (affixes, clitics, function words) at sight in the context of grammatical structures at word or phrase level. This means that the child develops considerable conscious control of the phonological and grammatical structures of his own language. It is my conviction that this conscious control of his own language is of value in learning a second language in the formal school setting.

Admittedly, this kind of control of a first language is not a prerequisite for learning a second language by free and friendly association with speakers of that second language. In the schools outlined here, however, there were no such normal contacts, and the second language was learned largely from the school teacher in formal classes. Where the teaching depended on conscious focus on features of the second language, practice in similar focus on the mother tongue facilitated the learning.

2.7. The development, in the mother tongue, of basic concepts for the content subjects.

Unfortunately, in the unnatural situation of the school, most learning is not by doing and experiencing, but by rote memory and verbalization. It is possible for an individual to do a great deal of verbal learning which is only a manipulating of word tokens without meaning. This is especially true in a language which the pupil does not know well. He may learn to parrot the appropriate collocations of words, and yet have no real notion of what is meant.

In the bilingual schools, the child is introduced to a wide range of new ideas in his own language, for which he has adequate real world referents. In most of the programs, he makes the transition to using the second language slowly, with diglot texts and instruction in both languages. By the time he is working monolingually in the second language, he has a fair understanding of what is being talked about, and a habit of expecting to understand the words he is manipulating.

2.8. The use of reading as a tool in second language learning.

When it is necessary to learn a second language from a single teacher, there is a serious limit on how much the language can be heard and practiced in normal speech contexts. The use of written material can substantially increase the child's exposure to the language, and enhances his chances of learning it. In the bilingual programs, literacy in the mother tongue is followed immediately by learning to read and write in the second language. Thereafter the child has diglot materials (except in the Mexican programs) which help him in learning the second language—reinforcing and expanding what he learns orally.

3. Conclusion.

This paper, with its observational reporting and its preliminary hypotheses, can only be taken as a starting point for more rigorous research. There is a need for more studies like Modiano's (1968) to quantify and confirm the nature and degree of the success of the bilingual programs.

It has been said that nobody has ever taught a language to a small child. There is need, therefore, for a careful study of what happens in the bilingual schools—how do the children learn the second language? In this connection, there is need of specific studies of the role in language learning of conscious control of the structure of the mother tongue, and of the usefulness of reading. There is also need for research that compares the processes of learning language in terms of well known concepts, and of learning language and new concepts simultaneously.

It is hypothesized here that literacy in themother tongue minimizes culture shock, and augments the child's sense of worth and his expectaion of success. There is need for research into the relative usefulness of mother tongue literacy for this purpose, versus other less costly strategies.

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BILINGUAL AND BIDIALECTAL EDUCATION: AN ATTEMPT AT A JOINT MODEL FOR POLICY DESCRIPTION

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A basic conceptual premise of modern sociology of language/sociolinguistics is that the functional diversification of the language repertoire of a speech community can be analyzed along essentially identical dimensions regardless of the societal view or the nature of the codes or varieties involved therein. Thus, whether it consists of several "languages", or whether it consists of several "dialects" or "sociolects", or whether it consists of both different "languages" and different "dialects/sociolects", the functional allocation of varieties within the community is felt to be describable in much the same way. Whether the analysis is in terms of situations and their counterparts or in terms of domains and their counterparts is related not to any distinction between "languages" on the one hand and "dialects" on the other, but, rather, at best, to the level of analysis required by the researcher for the particular problem under study, or, at worst, to the level indicated by the limits of his own professional indoctrination. In either case the distinction between "languages" and "dialects" is considered

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to be basically a within-community functional-evaluative distinction, rather than one that can be made on the basis of objective external criteria. Certainly a diachronic view amply supports this approach (revealing any number of once "mere" dialects, that were subsequently functionally, evaluatively and structurally "elevated" to the position of languages as well as many cases of the reverse progression), however much a synchronic view may reveal objective differences between coexisting languages and dialects with respect to such matters as extent of elaboration and codification.

Given the foregoing view that all varieties in a community's repertoire can be subjected to sociolinguistic analysis along identical dimenstions -- regardless of the functional-evaluative-structural differences that may characterize them -- this paper attempts to examine the further question as to whether a single integrative model is also possible with respect to educational policy description when such policy deals with separate languages on the one hand and with separate dialects on the other.

A model for bilingual policy description will be examined first, namely that derived from my paper on "National languages and languages of wider communication in the developing nations" (Fishman 1969). In its initial formulation the model proved to be useful to me and to some others (Kelman 1971, Whitely 1970) for the purpose of discussing national language policies in general

On further examination, this model may hold forth some promise also for the purposes to be discussed here.

Type A policy formulations with respect to bilingual education transpire in those settings in which educational authorities feel compelled to select for educational use a language which is not a mother-tongue within the administrative unit of educational policy decision (a country, a region, a district, etc). This is done when none of the varieties natively available within such units is considered to be integratively school-worthy, i.e. to correspond to a great tradition of past, present and future integrative authenticity and integrative greatness. Under such circumstances an outside Language of Wider Communication is selected to fulfil most educational functions.

The immediate practical consequences of conducting a school-system in a language which is not the mother tongue of (the vast majority of) the students are many. The first consequence is that the Type A policy ~~system~~ itself must initially be set aside for the earliest period of education, no matter how brief this may be, so that at least a minimum of one-way communication (from pupils to teachers)is possible from the outset. A frequent further consequence is that teachers too must begin by using the MT of their pupils, or at least, by being receptively familiar with it and with some of its contrastive features vis-a-vis the LWC which they must implement. All in all, however, the bilingual education that results from Type A policy decisions is minimal and transitional. Even if this stage is recognized in teacher training or in the preparation of learning and teaching materials the goal is to leave bilingualism behind as soon as possible in order to transfer all educational efforts to the selected external LWC. Several countries of West Africa (e.g. Gambia, Sierra Leone) have made *national* policy decisions of this type, as have Latin American countries with respect to the education of indigenous *regional* Indian populations, as have most host countries with respect to the education of *locally settled* immigrant groups, particularly those of low social standing.

Further consequences of *Type A policy* decisions re bilingual educations also inevitably flow from the adoption of an external LWC. Since the language adopted is a *mother tongue elsewhere* (outside of the administrative unit under consideration), it must be decided whether the curriculum and standards in effect "there" should also be implemented "here", or whether indigenously determined content, methods and standards are to be employed. Frequently the former view has prevailed at the outset and the latter view has been accepted only later and reluctantly. Finally the consequences for adult literacy of Type A policy decisions are clearly fargoing. Those beyond school age have even greater difficulty in achieving and retaining literacy in a foreign language than do those who are still of school age. Even the latter experience difficulty in both of these respects given the high drop out rates and the lack of post-school functional exposure to or reliance upon the school language which mark most settings in which Type A policy decisions are reached.

Do Type A policies (which,in effect, restrict bilingual education to thebarest minima consistent with transitional goals) have their counterparts in the area of bi-dialectal education? Obviously there are many similarities, particularly where social mobility is low and role repertoires are narrow. Under such circumstances dialects/ sociolects that are common in other parts of the country/region/ district may be generally unmastered and non-functional within particular administrative units. To the extent that the transition to the school variety (D) is unreasonably hurried, and to the extent that use of other varieties (d1, d2, d3) are cosidered contra-educational (contra-cultural, contra-integrative) at the same time that role expansion is restricted or non-existent, then obviously, an educational burden is being placed upon those least equipped to carry it and a barrier to future mobility is being erected against those least likely to scale it successfully. Such an approach to "non-standard" dialects is still common in connection with the view of Black English and Chicano Spanish held by many American school districts, as well as the veiws of non-standard French, Spanish, Russian,Hebrew and Arabic still common in the countries for which the standard (or classical) versions of these languages are the only ones administratively recognized.

In none of the above cases is the view widespread that whereas all schools should teach all students something in D and some students many things in D, there are also at least some things that should be taught to all students in d and some students most of whose education may well be in d rather than in D. The insistence on D and D only for all students for all subjects is non-functional in many ways. It artificializes education in that it identifies it with a variety that is not functional in the life of the community. It threatens the viability of the student's primary community and of its primary networks in that it implies that only by leaving his native speech repertoire behind can the student enter a new role repertoire (and a new reward schedule). It causes education to depend upon outsiders to the community -- a veritable army of occupation and pacification on occasion -- rather than permitting it to be a partially shared function across communities or a community controlled function. It tends to impose educational content and methods and standards upon communities that are not as meaningful or as indigenous or as appealing to pupils as would be the case if the native life patterns (including the native speech) of the community were also viewed as schoolworthy.

All in all, the similarities between Type A policies when L1, L2 L3 and LWC are concerned, and Type A policies when d1, d2, d3 and D are concerned are both great and disturbing. In both cases local populations are relatively unconsulted and decisions are made for them by elites marked by broader integrative philosophies but also by self-status protective interests.

Type B policies at the inter-language level pertain to bilingual education of a somewhat more permissive sort. Type B policies hold that an internally integrative great tradition does exist at the unit level. Nevertheless, for one reason or another additional traditions too must be recognized. On the one hand, there may be smaller traditions than those that are unit-wide which have their own place and deserve some acknowledgement in the cultural-educational sphere. On the other hand there may (also) be certain larger traditions than those that are unit-wide and these (too) may require (or demand) recognition. All in all, therefore, Type B policies obtain where administrative units do recognize an overriding and indigenous integrative principle, but yet provide for local variation under and beneath or over and above it.

Such might be considered the between-language situation in the Soviet Union (vis a vis Russian and (at least) the larger local national languages), in Mainland China (vis a vis common spoken and written Mandarin and at least larger regional languages), in Yugoslavia (vis a vis Serbian and the various larger regional languages),in the Philippines (vis a vis Tagalog and the various larger regional languages), and, perhaps, within time,in the USA (vis a vis English and the more entrenched minority languages). Certainly such policies result in a series of practical problems of their own. How many and which languages should be recognized and what should be taught in them and for how many years? The fact that bilingualism is not viewed as merely transitional in nature does not, in and of itself, provide a single answer to such questions. As indicated elsewhere, bilingual education in the monocentric context (and, therefore, normally for the minority child alone) may still be merely oral or partial rather than full (Fishman and Lovas 1970).

At the level of between-dialect policy decisions Type B policies certainly also obtain. Once again these policies have a distinct similarity to those that exist at the between language level. Once again there is one variety (D) which is viewed as having indigenous cross-unit validity. Some subjects, it is believed, should be taught in this variety everywhere and to everyone. However, in addition, and particularly in the elementary grades,there are also other subjects that may well be taught in various parts of the polity in the local d's that parents, children and school-teachers alike share as the everyday varieties of various social functions. Only in the upper grades -- in schools which are likely to be regional rather than local in nature -- is it expected that almost everything will be taugh in D, but, then,such schools are either not expected to serve everyone to begin with or, in addition, by the time students reach them, they will have had eight or more years of time to master D, at least in writing if not fully in speech.

The foregoing approaches to bidialectal education is encountered, in most parts of Germany (see Fishman and Lueders; in press), in most parts of Italy, in most parts of the Netherlands, in many parts of Norway and Great Britain, in various sections of German-Switzerland and elsehere. The burdern of acquiring and mastering D is primarily reserved for the written language and falls primarily upon those best able to handle it, namely, those with the most education and, therefore, with the expectation of the widest role-repertoire and with the best chances for real social as well as geographic mobility. Teachers (particularly elementary school teachers) and pupils are commonly members of the same speech community. The school is not viewed as a foreign body thrust upon an unwilling local populace, but, rather, as a place in which local speech, local folklore, local history and local authenticity have their rightful place. However, the local who aspires to the wide role repertoire that is the mark and the distinction of the professional and the intellectual must also prepare to rub shoulders with peers from other localities than his own, and, therefore, he must master D, as well as d1 (or socially differentiated d1, d2, d3). All communities recognize and respect D, but all communities also feel themselves to be respected and consulted partners in the overall enterprise which D symbolizes.

Finally we come to Type C policies with respect to between-language relationships. In this connection we find that no single integrating indigenous tradition exists, but, rather, several competing great traditions each with its numerous and powerful adherents. Thus, regional differences, far from needing protection or recognition, need, instead, to be bridged or momentarily set aside if the polity is to survive. It is well recognized that pupils will be educated in their own mother tongues. The only question is whether they will also be sufficiently educated in some other tongue that they can use for communicating with fellow citizens of another mother tongue. Here bilingual education is of two kinds: sometimes in one or another of the several coequal (and often mutually sensitive) regional languages, and sometimes in an exterior LWC that may appear non-threatening to all concerned. Such bilingual education is common in Belgium, in Canada, in Switzerland, in India. Sometimes such polities lack a real link language and, only a small bilingual elite exists to hold together their multicentricity. Switzerland is an example of how stable even such arrangements can be (although German probably functions as an overall link language more frequently than is officially recognized to be the case).

Type C polities also have their counterparts at the between-dialect level although these are few in number. Just as there are several polities with locally well entrenched languages, such that each locality must be educationally concerned with teaching a link language for communication with the other localities of the same polity, so there are (or, at least, have been) counterparts of this situation at the between-dialect educational policy level. There are, of course, also polities in which each region teaches in its own dialect without any concern at all for a link-dialect, due to the fact that the dialects themselves are of high mutual understandability and of roughly similar social standing. The United States and several Latin American countries may be said to be in this situation.

In recent years, a noteworthy Type C policy at the interdialectal level existed at the height of Norway's efforts to link Riksmal and Landsmal via a manufactured Samnorsk. However, if we go back earlier in history we can find a few more instances of this same type. These are instances from settings in which language standardization was not yet well advanced and veracular education was primarily regional rather than national. Indeed, wherever vernacular education became well established in advance of unifying political or industrial development (Germany, Italy, Ireland) it was the unifying standard that had to fight for a place in education rather than the regional variant. Nevertheless, such cases tend to be self-liquidating in developing settings. Where a single standard becomes accepted it tends to lead to Type B policies in the bidialectal education field. Where no such standard becomes accepted bidialectalism in education is not a meaningful problem.

Conclusions

Generally speaking, the same theoretical model of educational policy decisions may be said to be useful for the description of bilingual as well as for bidalectal education. Indeed, use of such a model indicates that the same administrative units may well vary with respect to their policies at these two levels. Some units may be very permissive at one level but entirely non-permissive at others. Thus, some units are more permissive with respect to dialects than they are with respect to languages (e.g. German-Switzerland, Italy), whereas others are more permissive with respect to languages (e.g. India, where only standard Hindi may be taught even though there are tens of millions of speakers of regional varieties of Hindi). In addition, the use of a similar model for both kinds of variation renders more easily comparable any data pertaining to questions re degree (e.g. number of years), curricular content, etc. Once again, educational units vary widely in these respects when their bilingual and bidialectal policies are compared. Finally, the use of a single model for both levels of analysis facilitates comparisons at differing administrative levels and may make it possible to more quickly compare not only polities with polities and districts with districts, but also to undertake simultaneous between polity and within polity studies in order to compare both of these sources of policy variations.

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CULTURAL CONTRASTS IN ENGLISH-FRENCH BILINGUAL INSTRUCTION IN THE EARLY GRADES

by

W.H. Giles

According to Piaget, the sources of intellectual operations are to be found, not in language, but in the preverbal, sensori-motor period when schemas are elaborated which prefigure certain aspects of the structures of classes and relations, and the elementary forms of conservation and operative reversibility. The formation of representational thought is contemporaneous with the acquisition of language. Both of these are seen to be aspects of the symbolic function in general. In this, the first verbal utterances of the young child are intimately linked to, and contemporaneous with symbolic play, deferred imitation, and mental images as interiorized imitation. Thought has its roots in action. Before the appearance of language, or of the symbolic function in general, the baby has overcome its initial perceptive and motor egocentrism by a series of decentrations and co-ordinations.

Language is seen as one of the instruments which enables the child through the symbolic function generally, to represent reality through the intermediary of signifiers which are distinct from the objects of the actions that they signify. This capacity to represent reality by distinct signifiers had its roots in early imitation.

If, however, it is true that the first words the child uses are signifiers of the object or actions which they signify, it is equally true that children do not start with words. They start with syllables which are often ill pronounced, and are often an attempt to imitate either the whole or a part of the desired signifier. Thus, even the attempts at the first word, retain the imitative character of the symbol, imitated in isolation. The child who uses the sounds in an attempt to replicate words usually does so as part of an expression of a possible action - an expression of a demand or a desire.

Much of the speech learning done by the child immediately after birth is relatively independent of adult vocal stimulation. The crying and wailing of the young child, the methods of short sharp inhalation and prolonged exhalation are fundamental to the speech which is in the course of evolution. The lip, jaw and tongue movements required in all languages are repeatedly practiced. This physical activity is fundamental to speech readiness. The non-crying sounds of grunts, gurgles and sighs include most of the front vowels, the consonants k, l, g, and the clottal catch (a plosive sound made by suddenly releasing the air stream that has been held back by the closed glottis).

The effect of duck imprinting (Hess) where freshly hatched goslings were given a mechanical decoy which said "gock" led to the young goslings preferring the mechanical "gock" to the honk made by the adult goose. Even if geese are not human, we still know that institutionalized children learn more slowly than those who interact with their parents and with even two days of conditioning (Rheingold) three month old children have made substantial advances in sound production. The use of reflex sound tend to be followed by babbling which starts about 8 weeks after birth with little vowels such as ee, ih, uh and others made at the front of the mouth a few m's, b's and consonant sounds, juxtaposed with an assorted variety of gurgles and grunts.

At about the 6th month in a normal unprecipitated context (in the sense of Burton White's experiments) visual control over the hand resulting in a grasping and sucking schema which is then co-ordinated with socialized vocal play, is characteristic of the average child. Such vocal exercises are customarily employed to obtain attention, to support rejection and to express demands. This stage is often characterized by syllable repetition or the doubling of sounds (i.e. da da) which will be practiced to the exclusion of other sounds for weeks at a time. In fact, prelinguistic utterances during the first six months undergo parallel development for both deaf and for hearing children, thus indicating the importance of the physical structure of the human animal, or as Chomsky might describe it, of inborn biological factors.

At about the eighth month the child begins to use inflections in the babbling. Until this period the repertoire of sounds could probably be that of any language group.

Between eight months and a year, the sound vocabulary increases especially in the development of front vowels and consonants. Back vowels (u, ʊ, o, ɔ)are now used more extensively, and these appear to be fundamental in the development of early speech. It has been noted (Irwin & Curry) that 92% of all vowels uttered by babies are front vowels as opposed to 49% for adult speech. During this period babbling occupies a dramatically larger portion of the child's time as compared with crying. Speech sounds appear in meaningful words, singly, doubly, usually in a playful context. The first words of the child often resemble those of the adult. Many of them are of the "abracadabra" variety - such as when the child says "mama" and mama appears. Essentially the words used are words employed in a situational context as part of a total schemata.

At about 18 months the mythical average child has a vocabulary of from one to twenty-five words. Many of these are one sentence words of a sort expressing demands or desires. As the child experiences a particular sensori-motor schemata by manipulating it, and an adult intervenes to provide the word, the child will, on repetition, come to recognize the words as part of the total experience. The child of this age employs a rich jargon in a seemingly purposive way, talking to people, animals and toys. The child's new teeth enable him to produce new sounds which must be practiced. Sometimes the child begins to parrot back what the parent has said.

At the age of two, the age chosen for beginning our formal consideration, the average child is talking. Language has become not only a safety valve, but also a tool. Simple and compound sentences have arrived and if the jargon has largely disappeared, his speech rhythm is uneven.

The verbal growth in the third and fourth years are especially important. The explorations of the child require an expanded vocabulary and a larger area of traditional syntax. He must expand his control of certain sounds, i.e., the tongue tip l and r sounds for the labial w, the use of the k and g plositives for t and d, and many combinations and blends.

In the learning of one's mother tongue, the child proceeds through a co-ordination of sensori-motor schemas which have been actively built up during the first 18 months of life, starting from hereditary reflexes, and which take place while language is being heard. The child's actions are often described in language terms with the young being conditioned to hearing certain sound patterns describing objects or activities. "By naming objects, and so defining their connections and relations, the adult creates new forms of reality in the child, incomparably deeper and more complex than those which he could have formed through individual experience", (Luria, 1966, p. 11).

He acquires a verbal label as one of the multitude of sensory attributes of an object, and a bond develops between word and referant.

In the case of the Luria twins, children of 5 used their own private sounds and words to communicate. This "language" was phonetically impaired, as were their physical games. The same thing is true for the younger normal child whose ability to understand another person's normal speech is dependent, not on a simple accumulation of vocabulary, but rather on a process of gradual discrimination of the verbal signals from which words are made up, and the physical situation within which the verbal signals are first presented.

An examination of the role of generalization, and classification of whole words, tends to underline some of the inherent problems in the learning of one's mother tongue. First, we should note that words not only have many meanings, but when juxtaposed with other words can be modified still further. Vygotskii's work has tended to show that changes in semantic structure is accompanied by changes in the inter-relationship among psychological processes comprising cognitive activity.

During the initial stages of development, discourse is understood by a child only within the limits of a specific concrete situation. Word meaning thus depends less on the relationship amongst the words than on the connection with a specific situation originating in the perception of some object which is recalled by a sentence.

In working with words differing by a single phoneme, Shvachkin showed that the general course of phonetic development in children aged 11 months to 1 year 10 months, phonemic development in Russian for native speakers passed through the following stages :

1) differentiation of vowels,
2) differentiation of the presence of consonants,
3) differentiation of sonants (all sonants have one common feature: in articulating a sonant the organs of speech form an obstruction to the flow of outgoing air, but there always remains a free passage either in the mouth or in the nasal cavity. In Russian the consonants ʃ and P are sonants; in English the sonants are such sounds as b, v, w, and d, being sounds in the normal production of which the voice plays a part) and articulate plosives (in English any one of the six consonants p, b, t, d, k, q, characterized by the breath stream at some point in the speech mechanism followed by a sudden release),
4) differentiation of hard and soft consonants,
5) differentiation of sonants,
6) differentiation of plosives.

Put in another way, repeated exposure to particular kinds of perceptual discrimination problems greatly favours educability. As a consequence of inter-problem learning and the formation of learning sets, discriminations are made more rapidly (Harlow; Reese). Learning how to learn means learning how to perceive. The growth of phonemic hearing in preparing preschool children to read El 'Konin and Zharova), the development of children's abilities to discriminate pitch and rhythm, (Vetlugina) follow within this pattern. It is not clear if this is totally or partially naturalism, but a shift in judgmental activity between the ages of 5 and 7 years leads the child from simple dependence upon sensori-perceptual qualities to a reliance upon more inferentional conceptual manipulations. This is reflected in social judgments (Gollin), conceptual styles (Kagen, Moss & Sigel) and in conservation (Piaget, 1960). It is argued by some that there are allegedly optimal periods of readiness for every type of cognitive skill, and the child who fails to learn the skill at the appropriate age is forever handicapped in acquiring such skills at a later date (Fowler).

Shvachkin also notes that hearing plays an important role in distinguishing nuances in both the earliest stages of phonetic perception and the latest. This was seen as being especially important in the differentiation of consonants whose articulation have a close resemblance (i.e., between voiced, and unvoiced consonants). Gvozdev established that in Russian the assimilation of new sounds takes place as a gradual process through intermediate sounds. This classifying characteristic was carried further by El 'Konin and Zhurova. They trained 5 to 6 year old children to distinguish sounds in their mother tongue by classifying the phonemic nature of the words. Thus, by changing the "e" sound in the word kēt (meaning catfish) to "o", the child sees the production of a new word, kōt(meaning cat). The child begins to recognize the role that patterns make and the auditory discrimination which was taught, produced significant advances resulting in earlier effective teaching of reading, writing and the more complex types of oral speech.

This type of research has been continued in English and we have seen that, by the age of 3, over 90% of native speakers of English have mastered the vowel sounds in English, even if the consonant sounds are normally not all mastered until about 8 years of age. The nature of the progression of the learning of children's speech sounds in English seems to indicate that varied factors, such as socio-economic status, the number of siblings and adults in the immediate environment, parents' education,the physical, mental and emotional growth of the child, all influence development. Indeed, in English, no single "developmental sequence" has been identified in the acquisition of articulatory skills. It seems likely that more than one sequence is possible (Healey) and, in any event, girls seem generally to pass boys at age 3 during the years 4 and 5.

At the age of 5, it would appear that both boys and girls have in English acquired the consonants p, b, m, h, w, d, n, k, t, q, and ng, and that girls will have also acquired l, leaving the normal sounds of y, j, tr, to be acquired during the year 5, and zh, wh, tr, to be acquired by both boys and girls at 6, with girls also acquiring ch, sh, r, and j. At the age of 7, boys traditionally acquire f, l, r, ch, sh, s, z, th, v, with girls acquiring the s, z, th. The consonant blends tr, bl, pr, etc. develop between the ages of 9 and 10, these usually arriving about one year after the single consonants have been acquired (Healey). Thus it is clear that in English at least, the phoneme basis of the use of one's mother tongue is not fully formed until about the age of 10 years. It has recently been observed that the earlier assumption that a child's whole grammar was acquired before the age of 7 is substantially inaccurate in at least the area of syntax (C. Chomsky). When one looks at the problem of positive transfer between one language and another in respect to development of phonemes, morphones or syntax, or negative transfer, it would seem that special problems exist for the bilingual due to the interference of the one language with the other, and it is at least a reasonable hypothesis that the late delay of English language development, may perhaps lead to either a retardation in development or to a more enriched classificatory system of both syntax and sounds.

The mental processes which the child goes through during the stage of intuitive thinking (ages 4 - 7) are characterized for the most part by what Piaget calls "transductive thinking". That is, the child tends to link together neighbouring events on the basis of what the individual situations have in common. If we had a collection of groups of materials differing in shape and colour, then we might say that groups 1 and 2 could be linked by colour, and 2 and 3 by shape, with 3 and 4 linked again by colour.

One possible inference from this is that early reading and language learning in a bilingual school should be in the language with fewer exceptions, and one with more regular patterns. Thus we begin our first language of formal instruction in French, rather than in English. We recognize that early learning will reflect a kind of slow motion film state with the child moving from the particular to the particular. Variants in physical form, as in language, are introduced to ensure that when the child is mature enough to pass beyond the level of linear succession to a multiplicity of similarities and differences leading to hierarchical inclusions, he will have the experiences to be able to advance.

The movement of the child through the non-graphic state (in which the child is beginning to develop an understanding of logical classes) arrives during the learning of different ways of discriminating more and less, bigger and smaller, thicker and thinner, and, generally, the same or different. These concepts and the vocabulary associated with them are learned perceptually in action. If the child has a tendency to focus on only one aspect of a comparison, then a variety of physical interactions coupled with language may enable the child to acquire the experience necessary to go beyond this preliminary stage. Depending upon the child, it would seem that, between the ages of 7 and 8, the child is able for the first time to co-ordinate representative relations, and to conserve the idea of sameness, and to reverse ideas. The differences in languages which are marked in the child of 5 and 6 begin to be separable on a developmental basis at 7 and 8.

The developmental levels in English found by Carol Chomsky and William Healey respectively for syntax and for phoneme development may be the normal levels in average children learning only in English, given the types of environment, including the education, of the individual children. Knowing what we do about linguistic transfers, the juxtaposition of several languages together is at least likely to cause initial confusion both in syntax and with respect to phonemes, and this is exactly what our experiences have indicated in our own school.

When the native speaker of English first comes to our school as a student, he has progressed, for the most part, through the development indicated. He brings to the school that chain of physical experience for sound making which is peculiar to native speakers of English. At the age of 3-3½, he enters our nursery classes which are entirely conducted in French as they have been for some 13 years. Since we know that passive learning devoid of sensori-motor involvement is relatively ineffectual in bringing about verbal assimilation, our programme is structured about games of a sensori-motor character. Children in their third year learn the names of things two to three times more quickly if they are permitted to handle them while learning the names (Razran). Thus we attempt to make our learning situation imitative of real life, sensori-motor in character, and active in involvement. The use of mime, and drama becomes a must in the context, as does the involvement of the child in games in which the child's own choice of toys is of real importance. In our pre-school classes, the language of instruction is French, and French becomes the obligatory medium of instruction after a short period of time, for the Nursery, Junior Kindergarten, and Grade I. In Grades II and III, the students have up to 8½ hours a week in English to cover the normal programme taught during Grades I, II and III in all other all-English schools and to deal with at least some of the problems generated by the nature of the programme.

The fact that we start reading in English only in Grade II produces a number of side effects. We succeed in creating high standards in reading in French, and in avoiding the confusion which would probably have resulted if we had taught both English and French reading in Grade I, at the same time. On the other hand, we may have delayed phoneme development in English by not providing instruction in the language at the Kindergarten and Grade I year levels. Thus, the child who knows how to read in French will have acquired a phoneme association with that language. Because of a variety of factors, including the methods employed to teach reading, a significant percentage of our children read in English before having had a specific programme for English reading, albeit many do so with a French accent (see Table I). These results have been consistently achieved in the same 1,300 - 1,400 children who have passed through our Grade I. At the end of our Grade IV, our children have achieved equally interesting results (see Table II).

If our reading programme, despite phoneme confusion, achieves exacting results, our spelling programme produces results which are predictable for two reasons. Firstly, creative writing is taught entirely apart from spelling, and the clash of phonemes produces a written form of English which is phonetically based, and confused as between English and French. The kinds of spelling errors typified by this type of approach, would include those set out in Table III.

A typical mistake found in other material is the simple addition of an extra e at the end of a word. Of course, our basic problem in English spelling is that there are more vowel and consonant phonemes in English than there are vowels to represent them. The relations amongst stress, spelling, and pronunciation constitutes a further variable. In some areas of spelling difficulties, the sound patterns are normally acquired for the first time at ages 7 and 8 in an all-English school where reading is firmly established in the mother tongue. The failure to teach these sounds formally may be a contributing factor in the failure, if any, within the normal pattern of acquisition of such sounds, at the ages of 5 and 6 years. Equally, the higher levels of achievement at later stages might also be a bi-product of the richer structural pattern of experiences within our school.

Striking problems in early spelling levels in English in The Toronto French School in Grades II and III, based on standardized tests, continue to ameliorate in Grades IV and V, in Grades VI and VII (see Table IV). We teach patterns in spelling early, and the exceptions somewhat later. This experience, like all bilingual experiences, is not really generalizable, because it probably depends upon the teachers, their linguistic training, the class size, the hidden curriculum of the home, the structure of the programme, the extent to which the programme is actually followed, the emotional environment of the classrooms, and a number of other significant variables, such as the economic use of what is being learned, the status of what is being done, the social content of the language, the juxtaposition of native speakers of the other language, cultural supports which exist apart from native speakers, etc. Our bilingual speakers in Toronto are not the same as the bilingual English-French speakers in the Province of Quebec. Developmental patterns probably are somewhat consistent, but it is questionable whether other aspects, in different situations, follow the same pattern.

In some ways our progression in spelling resembles one matched pair experiment which we ran with our Grade II children some years ago. We wished to explore the effect of teaching English children who had been entirely taught in English in Kindergarten and Grade I, again in French in Grade II. We were looking at progress in English for these children when they were deprived entirely of English throughout the Grade II year, as compared with their control group which received a regular 7-hour a week English programme. We were looking at such questions as word recognition, vocabulary, reading, spelling and creative writing to see what effect, if any, a total absence of instruction in English at school would have on English results. Tests were given at Christmas and at the year end. Differences to the .05 level of significance existed in every area at Christmas but by the year end, the deprived students were achieving results which were statistically equivalent except for spelling results and those in creative writing. In the spelling area, on the tests employed, our average child in the normal Grade II seems to move from the Grade levels of 3.2 in Grade II, to 4.7 in Grade III, to 5.9 in Grade IV, to 7.9 in Grade V, to 9.2 in Grade VI. A systematic exposure to conflicting structures seems to provide the children with a better understanding of the phonetic base in both languages - but not immediately. The immediate result is confusion and only when the child has developed the classificatory rules sufficiently can he separate English from French in this area. Having done that, the child seems to become much more aware of differences than the children reflected within the norms of the standardized tests.

Many types of linguistic confusion in syntax exist with English French bilinguals. The kinds of confusion may be a product of age, or the kinds of informal or formal learning patterns presented to the learner. As in other instances, our problems of confusion seem to be due to structural interference arising from parallel construction.

At the ages of 5 and 6, the constructions most frequently confounded in our school are those set out in Table V. It will be noted that in the main they consist of idiomatic expressions which must simbly be learned via pattern drills or generic games. The constructions are literal translations from English despite the fact that no translation from English to French is permitted at any time in the classes. What this seems to indicate is that native speakers of English who reside in an all English environment, where no French is spoken in the home, still seem in many cases to have a tendency to impose English syntax upon the French language even when all of his formal instruction for one, or two, or even three years is entirely in French. Perhaps even so small a thing as the existence of a French T.V. station, and the opportunity to obtain some reinforcement outside of class would modify the pattern. Our students do not seem to experience syntactical confusion in their English due to their learning in French. These two factors taken together might well be taken to lead to a conclusion that for the majority of our students, English is still dominant at the age of 8 or 9.

We know that classificatory exercises of all kinds increase learning from the very first days. Thus experiments involving the verbal description of action and its visual depiction, have increased the learning of paired pictures (Reese). In addition to the normal development of classification in mathematical areas, we can regularly see children grouping items according to perceptual properties, and the self directed use of linguistic terms for characterizing objects demonstrates a gradual course of development (Olver and Hornsby). A researcher has found that a minimum amount of language is necessary for adequate performance on a sorting task (Stodolsky).

The age of five to six appears to be a transitional stage in orienting effectively against the suggestive power of strong stimulii. By the seventh year, it would seem that most children's motor systems have been sufficiently influenced by verbal classificatory experience that the systems themselves have become amenable to regulation by a verbal system of elective connections. Learning of this latter kind which conforms to prescribed criteria, rather than to transductive associations, must be initiated by an orienting or organizational process which is inherently complex, consisting of a preliminary representation of the product, then the process itself, and finally a system of reference points which allow the task to be performed (Gal'perin and Talyzina). The gradual replacement of concrete actions with verbal ones, reflects the gradual advances of the child towards a generative form of language and structure. It seems clear that both through published research, and our own experience, that a close linkage exists between verbal and non-verbal conceptual development, and that the organizing of reading, and spelling through patterns, tends to accelerate development in the skills area, by creating artificially the classificatory means which enable the child to advance. Generalizing of words and structures do lead to early confusion, but consistent approaches with regular reinforcement gradually ameliorates the problem. Language by its nature is generalizing, and thus ensures cognitive feedback from perception of response into stimulus, with the one concrete and sensorily disclosed, and the other verbal. Words are probably more amenable to exact definition than sensori-motor responses, with the result that verbal interaction inevitably seems to lead to greater classification and differentiation.

Teaching through a second language has proven to be an effective tool in eliminating poor learning methods. After teaching through the medium of French we stopped using many traditional approaches because we found that the filter of teaching through the second language, eliminated understanding unless the learning programme was of a kind which would make up for an inadequate language control, and hence inadequate ties between the language used and cognition. For instance, we have learned that children with visual perceptual handicaps, when taught to read in French, do not acquire reading skills in English in Grade I, whereas those who have no such problems generate reading skills in English on their own on the basis of the approach learned in French. This has necessitated special approaches for all children in Kindergarten. Since it is commonly said that nearly 20% of all children have either minimal or substantial perceptual difficulties (L. Shannon), the size of the problem cannot be ignored. Thus, while the filter aspect can be an advantage, it can also produce enormous human disasters unless honest evaluation constantly leads to the rejection of poor teachers, poor curriculum, and poor methods in bilingual schools.

It may be argued that in the long run exposure to broader classifications of sounds through bilingual education will lead to greater classificatory understanding, and hence greater cognitive development in that area. No doubt this may be true if the learning is well structured and effectively organized, but such results have not been achieved consistently in the bilingual schools for native speakers of French in Ontario, and in New Brunswick where a French English bilingualism has existed for over 50 years. It has also been suggested that there may be critical learning periods during which deliberate exposure to certain constructions would result in learning, but denial of the teaching might inhibit the development for all time (C. Chomsky, p. 102). This has implications for second language learning in general, and of course, it has particular implications for the whole question of whether one should suppress the teaching of a second language, until the first one is soundly acquired.

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TABLE I

Reading and Language Achievement in Grades I (without English) and Grades II (with English) according to The Metropolitan Achievement Primary I Battery Tests with Regular Classes at The Toronto French School.

	Grade I	Grade II
Word Knowledge	1.8	3.9
Word Discrimination	2.8	3.7
Reading	2.4	3.6

TABLE II

Reading and Language Achievement in English in Grades III, IV, V, VI, VII, VIII with a variety of Tests, on the graded level.

Metropolitan Achievement Tests

	Word Knowledge	Word Discrimination	Reading	Language	Language Steady Skills	Social Skills
Grade III	5.2	4.9	5.0	4.4	N/A	
Grade IV	6.8	5.7	6.4	6.1	N/A	
Grade V	8.8	N/A	8.3	7.7	7.2	7.1
Grade VI	8.8	8.3	9.5	8.4	8.4	9.3

TABLE III

should	chood - as in chêne
chare	cheir - as in cher or char
other	ather - a as in mal
my	mi - i equals y
mad	made - silent e at the end of a syllable in French to sound the syllable
because	bicose - i as in lire ose as in chose s = z
hurts	herts - er as in herbe, terminer
easy	isi - i = y s = z
does	das - a as in mal or tasse
always	allwes - non accentuated e
tease	tise - i as in litre or tisse s = z
laugh	laf - gh = f a as in mal af as in affaire
class	classe - as in classe
friend	frent - hearing difficulty between t and d
make	mek - as in mécano
to	tu - as in tu
lunch	luche - silent e
then	thenne - doubling of consonants between vowels as in ennemi
sure	shur - s = ch as in choux
have	av - silent e removed as in English

mad	mat - hearing difficulty between t and d
gate	gait - as in gaité
who	hoo, ho - w is silent, as in houx
why	wy, whi - i = y h is silent letter
she	chee - as in chat
sky	skace, seky, skie, sei - influenced by ski
come	cam - o = a as in camarade
can	can, cane, cann, kane - k = c as in canne
come	comme, kum, cum - as in comme
of	ov - f = v
blue	bleu - influence of French spelling
December	Desember - s = c
fish	fich - as in fiche
remembered	rememberd - e omitted because of French influence as in perdre
could	cold, cod - l omitted due to French influence of code
touch	tuch - English ou = French u
friend	frind - as in pin
their	there - as in mère
know	no - k and w are silent letters - no as in domino
knew	new - silent k
like	lyke - i = y
corn	korn - c = k
we	wi - English e = French i
knife	nife - silent k

few	fiu - iu = French i and English u
lots	lottes - as in botte
math	mathe - e as added at end of French words
he	hi - as in hibou
dentist	dentiste - influence of French spelling
soft	softe - e as added at end of French words
very	veri - as in véritable or vérité
towel	towl - silent e
can	kan - c = k
grey	grai - as in graine or graisse
hair	her - as in herbe
wait	wate - English a plus French e at end of word
she	che - as in cher

A number of errors are due to the interference of both English and French phonetics. For example :

s = z
i = y
rr = r
mm = m
i = é

Further errors may be due to hearing difficulties as in the case of f = v , and t = d , or to silent letters such as h and e.

It is to be noted that in an American school which is somewhat famous for its work with children who have visual perceptual difficulties - the Gowl school in South Wales, New York - children as a practice are not permitted to learn French because their ongoing experience is reputed to show that Romance Languages in general cause enormous problems in English, and the French problem is most acute. Latin, on the other hand, which might be defined as the mother of French, does not appear to cause such confusion.

TABLE IV

Spelling Results in The Toronto French School in English on The Metropolitan Achievement Tests, Primary II Battery, Elementary Battery and Intermediate Battery.

Actual Grade	Average Grade Level	Average Percentile level for each Grade
Grade II	3.2	65
Grade III	4.7	70
Grade IV	5.7	75
Grade V	7.8	85
Grade VI	9.2	87

TABLE V

Correct Usage	Typical Error
J'ai faim	Je suis faim
J'ai soif	Je suis soif
J'ai froid	Je suis froid
J'ai chaud	Je suis chaud
J'ai fini	Je suis fini
J'ai cinq ans	Je suis cinq ans
Je suis un garçon	J'ai un garçon
J'ai mal à la gorge	J'ai mal au cou
J'ai un crayon	J'ai a un crayon
Ma maison	Mon maison ou moi maison
C'est ma maison	C'est la maison de moi
C'est la plume de John	C'est John's plume ou La John plume
C'est à John	C'est John's
C'est à moi ou c'est le mien	C'est mon
J'attends John	J'attends pour John
Quelle heure est-il?	Quel temps est-il?
La robe rouge	La rouge robe
A la télévision	Sur la télévision
J'ai parlé à John au téléphone	J'ai parlé à John sur le téléphone
Je vais chez le docteur	Je vais au docteur
Je vais chez le coiffeur	Je vais au coiffeur

Je vais chez le dentiste	Je vais au dentiste
Je vais au cinéma	Je vais à le cinéma
Puis-je me laver les mains?	Puis-je laver mes mains?
Puis-je avoir un crayon?	Puis-je un crayon?
J'écris mon devoir	Moi écris mon devoir
Tu es joli	Tu regardes joli
Je l'ai vu (le chat)	J'ai vu le
Je t'aime	J'aime toi
Lundi c'est ma fête	Sur lundi c'est ma fête
Mes cheveux sont courts	Mon cheveu est court
Il s'est moqué de moi	Il a ri de moi
C'est pourquoi faire?	Qu'est-ce que c'est ça pour?
J'ai 8 ans, 9 ans	Je suis 8, 9
Le bonbon rouge, etc.	Le rouge bonbon, etc.
Samedi, j'irai	Sur samedi, j'irai
Le matin, je	Dans le matin, je
Je le donne à Jacques (la, les)	Je donne le à Jacques (la, les)
C'est mon cahier (ou c'est le mien, le tien, etc.)	C'est mon (ton, son, ma, etc.)
Je suis allé (tu, il, etc.) tombé	J'ai allé (tu, il, etc.) tombé
Tellement	Si beaucoup
Il ressemble à	Il regarde comme
Je viens de demander	J'ai juste demandé

Il fait chaud, froid, etc.	C'est chaud, froid, etc.
Il m'embête	Il embête moi
Il faut	Je faut
C'est ce que je voulais dire	C'est qu'est-ce que je voulais dire
Je dois mettre	Je dois mis
Je peux apporter	Je peux porter
Je vais	Je vas
Ils se battent	Il bat (ou il batter)
Aux	à les
Au	à le
Des	de les
Du	de le

FREE LANGUAGE ALTERNATION IN EARLY CHILDHOOD EDUCATION

by

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OUTLINE

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Between the ages of three and eight in the bilingual upbringing of children the influence of the community, and in particular of the school, becomes stronger and stronger. Even at this early age, the school, which may include nursery classes, kindergarten and the early primary grades, can produce a long-lasting influence on the language competence of children.

Introduction

Bilingual education in early childhood has taken a number of different, and often contradictory, forms.[1] They range from the bilingual education of bilingual children in Wales to the unilingual education in another language of children from unilingual homes, as illustrated by the French schooling of children from Montreal English-speaking families in the remarkable St. Lambert experiment.[2]

The purposes of the various programs of bilingual education are not, however, always the same. In some cases, bilingual schooling may be simply a device to assure efficient foreign language learning.[3]

In others, it may be a means of assuring that minorities get at least part of their education in their mother tongue.[4] Or the purpose may be to transfer the medium of instruction from the foreign home language to the national language.[5] Or again, the objective may be the implementation of a national policy of bilingualism which gives the maximum possible chance of revival to a moribund national tongue.[6]

It would be nice to say that the formula adopted reflects the objectives to be attained. But this is unfortunately not always the case. The formulas are often either unenlightened or are based on inapplicable research conclusions arrived at under quite different and non-comparable conditions. By and large, early childhood bilingual education has been instituted as if there were a best formula applicable everywhere and under all circumstances. One of these is based on the widespread belief that the two languages must be used and taught in different contexts, since the failure to do so would inevitably produce a single mixed language. And the greater the difference in contexts, the less the likelihood of mixture.[8] If the child addresses the same person indiscriminately in two languages, he may remain indifferent to their separate existence.[9] Such alternation is likely to lead to mixed word-associations.[10]

This widespread stricture against language alternation within the same context has determined the teaching pattern of many attempts throughout the world at early childhood bilingualism in school and kindergarten. As a result, elaborate and expensive precautions have sometimes been taken, including even the doubling of staff, to prevent the child from speaking two languages to the same person. The practice must go back more than half a century. In the early 1930s, for example, the multilingual international school in Madrid, which operated in two, three and sometimes four languages with children aged three to five years, required its teachers, in and outside the classroom, to use only one language with the children.[11]

Bilingual educators have blindly accepted the principle of language segregation without always inquiring into the reasons for its application, its relation to such important factors as the number of skills to be maintained, the order in which the languages have been acquired, the degree of control exercised by the teacher, and the age at which a second or third language was introduced.

The purpose of this paper is to question this claim that language alternation in education is universally harmful. I propose to do so, not by a series of controlled experiments, but by describing a single population which became bilingual through free language alternation in school, without apparent harm, at least over the ten-year period during which it has been observed.

I refer to a mixed population of children of American and German parentage in the city of Berlin. About 50% are children of Berlin residents most of whom speak German at home, about 40% are from American families living in Germany and about 10% from the international community - largely from the Commonwealth. In all, 62% of the children were born in Germany and about 48% make some use of both languages at home. As for the teachers, about half use only German at home, a third use only English and the remainder make some use of two or more languages.

The school, which in the 1960s was re-named after the ill-fated American president J.F. Kennedy, had a student population which passed the thousand mark in 1970. During the decade between 1960 and 1970, this bilingual school has been running an American-German curriculum through the free alternation of two languages - English and German. Although no final academic assessment is possible until the fate of the first graduates is known - after having completed their student careers in unilingual German or American universities - the effects of this type of bilingual instruction, even over a decade, do not seem to have been harmful, as far as anyone has been able to judge. If the reaction of the population is any indication, the educational formula used seems to have been successful, as indicated by the fact, that for 20 vacancies that occur every year in the primary grades, there are between 300 and 400 applications, especially from German families, some of whom apply for a place soon after their child is born.

Because the formula represents a type of bilingual education which has seldom been described, it might be useful here to outline how it has worked out in this particular case, especially at the kindergarten and early primary levels. Most of the material will be drawn from a study commissioned by the Ford Foundation and followed up by a full-length description which is to appear in a forthcoming book.[12] During this period free language alternation has been encouraged in a number of ways. The teachers, most of whom are in varying degrees bilingual, are free to use either language in their teaching, and in practice alternate considerably between languages within the same lesson. The pupils are also free to use either language in and outside of class, and for many of their activities are grouped in such a way as to promote bilingualism. Their other language is not called the second language or the foreign language, but rather the partner tongue.

The practice of free alternation of languages begins in the first year of kindergarten where a great many occasions are provided for the unilingual child to begin by listening to the partner tongue, before attempting to speak it, and in the early grades to read it and later write in it. Throughout his bilingual school years unobtrusive forces are at work which prevent his language alternation from developing into language mixture.

To understand how the formula works it is necessary to examine (1) how the context of free language alternation has been created, (2) how it is used in the teaching, (3) how the practice promotes learning, (4) the determinants of language alternation in the child's behavior, (5) the linguistic and (6) the educational effects of the formula.

1. *Creating the Context*

In a primary school where children are expected to learn another language largely by associating with other children who speak it, it is important to create a social context which promotes such association.

If children of two different home languages are placed together in the same group, a condition is created in which at least some of the children may profit by the use of their second language. In the JFK School this is the most common type of grouping, promoted even out of class where parents are encouraged to organize outings, parties and picnics for the purpose of mixing the two language groups. The same is done for sports, in which the organizing of American groups to compete against German groups is not permitted; a

German team is never opposed to an American team. Similarly, most classes outside mother tongue classes are bilingual in their grouping.

It is difficult, however, to prevent people with something in common - particularly children - from yielding to the natural tendency of birds of a feather to flock together. When this happens in bilingual schools, it creates language-based cliques and factions which work against the very reason for which some bilingual schools are created. To prevent this, the school encourages the creation of mixed friendship groups.

Much of this mixing is done in class, often through ingenious seating arrangements which break up unilingual conversation groups within the class and enable a learner to call on a partner for help in his second language. Some teachers use permanent arrangements originally arrived at on an informal basis. Others formalize the seating, alternating systematically between one language and the other. Some even change the pairing once a week so that every German child sits beside another English-speaking child at least for a week during the year. Other teachers have children sit where they wish at the beginning of the year and soon have them select the partners likely to help them most in their other language. This then becomes the permanent seating plan, for which a chart is made. Not only are the learners grouped in various possible ways, but each may be paired language-wise with teachers of different language backgrounds. There is also the question of the grouping of teachers among themselves.[12]

A bilingual group may be taught bilingually or unilingually by teachers who are dominant in either of the languages. Unilingual groups may also be taught by such teachers. In the JFK School all these combinations may be found - mixed language groups with American teachers, mixed language groups with German teachers, German groups with American teachers, German groups with German teachers, American groups with German teachers and American groups with American teachers. In some cases teachers group together to cover the syllabus, and experiments have been made in bilingual team teaching. The predominant grouping, however, is the mixed language class taught by either American or German teachers.[12]

It is possible that all children do not profit equally from free language alternation. That is why the school has prudently grouped children with language problems, children from broken bilingual homes, children unable to separate both languages and those with language blocks into special unilingual groups. Whether or not such a precaution proved to be necessary or desirable has not yet been determined.

Another exception to the practice of bilingual grouping is the organization of language classes in the home language and in the partner tongue. Since the objective is competence in at least one language comparable to that of a monolingual child of the same age, the school population in each grade is divided for purposes of language instruction into mother-tongue groups and partner-tongue groups according to level of competence, the highest level making no distinction between the two languages, that is, the child at this level follows both mother-tongue groups. In the other subjects children are grouped in such a way as to promote bilingualism through free language alternation.

2. *Language Alternation in Teaching*

The bilingual pattern is set from the first days of kindergarten, or as soon as the child enters the school and listens to the teacher alternating between languages. Since the alternation is free, however, it may take on any pattern or proportion, ranging from a single switch of language in mid-period to a continual sentence-by-sentence alternation.

The teacher may give part of the lesson in one language and part in another; he may give part of the material in one language and repeat the same thing in another language; or he may give only a summary in the other language. He may even have the bilingual students do the summary or repetition. He may alternate by period - giving one period in one language and one in the other. Or he may continually alternate between languages throughout the teaching. Although all these techniques are used in the JFK School, it is the latter that is predominant (See Table 1).

The ways in which these techniques are used vary from teacher to teacher. Teachers who teach one period in one language and one in the other sometimes repeat the same material from a different point of view. Teachers who repeat the same material in the other language within the same class may do so in different ways. For example, in one arithmetic class all pupils, except four, are bilingual, with German as their dominant tongue. The teacher, whose home language is also German, does his teaching in German, but from time to time asks the four English-speaking students if they understood. He then switches entirely to English and all pupils both German and English-speaking automatically switch to English. The assignment is then given in German and completely translated by the teacher into English.[12]

Most teachers, however, prefer to alternate continually, and often freely, between languages. For example, in an elementary science class, with students divided about equally between German and English as home languages, the teacher, whose home language is German, constantly switches from German to English - often translating each question immediately into the other language. Definitions are translated and dictated in both languages; so are all technical terms. When a bilingual German student gives a correct answer to a question, the teacher may ask him to repeat it in English for the benefit of the English-speaking students.[12]

Another way of applying the technique of constant alternation may be seen in a social studies class. Here there is very little translation, but a constant alternation between English and German although the home language of the teacher is German. One day the teacher may begin the lesson in German, another day in English. After five minutes she may continue in the other language. In asking questions, the teacher will alternate irregularly between English and German. Students reply in either language - often the dominant one.

A third example of the technique of constant alternation may be seen in a first-grade music class. Here the home language of the teacher is English. Much of the time is devoted to singing songs which have been translated into the other language. Songs are sung in each language, and sometimes alternate lines are sung in the other language, if the occasion permits.[12]

3. *Language Alternation in Learning*

The type and extent of free language alternation on the part of the children will greatly depend on their degree of bilingualism.

If they are still mostly monolingual they may eventually yield to the language of the teacher, even though their home language is the dominant one of the class. For example, in a kindergarten class an English-speaking teacher surrounded by monolingual Germans may be playing puppets with a single English-speaking child, who will eventually be joined by his German schoolmates in speaking in English about the puppets.[12]

Even in the early years of the primary school, pupils develop the habit of speaking in either language. For example, in an arithmetic class, where everything including the text is in English, several pupils will consistently ask questions in German, with both the assurance that they will be understood and that they can eventually understand the English replies. In one audio-visual class the lecture was entirely in English, all the student questions in German and all the teacher's answers in English.[12]

Many bilingual students may try consistently to ask and answer questions in the teacher's dominant language. They will not always succeed, however, and when the going gets difficult they will switch, even in mid-sentence, to their own dominant language. Other bilinguals reveal their language dominance by giving all their short questions and answers in their second language, but their longer ones in their mother tongue. Such transitional phenomena may be unconscious.

Some teachers try to structure the distribution of languages in the verbal behavior of the children. For example, in a geography class in the primary school each pupil pairs off with a pupil of the partner group to play a game which consists of finding places on a map.

As a result of all such bilingual activity reciprocal language alternation developed into a common practice, and it was not surprising to find that almost three quarters of the student population sometimes or often got a reply in a language other than the one in which they posed the question, and that 65% of the students stated that they had done the same (See Table 2).

4. *Behavioral Determinants of Language Alternation*

What determines this constant alternation between the two languages which is so typical of the whole school community?

There are several causes, stemming mostly from the natural dynamics of intercommunication. The pattern originates in the behavior of the teacher and is transmitted to the pupil, who extends it to his entire language behavior - in and out of school.

It starts in the kindergarten and extends right up to the final year. In the kindergarten, the bilingual teacher unconsciously tries to sense - to seek out - each child's dominant language in order better to communicate with him. In a kindergarten which may include 80% monolinguals - some 40% for each language - this means a continual alternation between languages. Later in the primary grades the teacher, in an effort to maintain the attention of the entire class, may have to switch languages with some frequency. When she notices, for example, that the four little American girls are not listening to her German explanation, she may unconsciously continue in English, to a point where she feels that she may be losing the attention of some of the German pupils. Or the switching may be the conscious result of a belief on the part of the teacher that a child should not entirely be deprived of his mother tongue.

The alternation may also depend on the choice of text. If the text is in one language, there may be either a certain amount of translation on the part of the teacher, or a conscious switch to the other language to redress the balance. For example, in a social studies class the bilingual German teacher taught in English because the text in the pupils' hands was German. She posed questions in English on pictures in the text having German captions and obtained replies in both languages. Contrariwise the language of the text may be reinforced by the teaching of the teacher.[12]

The degree of alternation is mostly affected by the presence of monolinguals - and as one goes up the grades these are mostly English-speaking. The arrival of a single monolingual pupil after the school year is already under way can suddenly alter the language distribution of the teaching. For example, an American child enters school in the primary grades a month after the beginning of the school year. In the social studies period the pupils who are now used to their German teacher's language pattern will, one morning, hear her begin the lesson in English and continue for some time. On her part, the teacher believes that this is necessary in order to make the unilingual newcomer feel at home. But because the newcomer may long remain unilingual, the teacher will continue to repeat herself in English for his benefit.

At the lower primary grades the change in emphasis may work in either direction. For example, in an arithmetic period the text and teaching is in English and the pupil's questions and answers bilingual. But for little Monika the teacher translates her questions into German and it is in German that Monika replies. One day, however, she may find that Monika is answering in English to her at all times. But when little Monika gets mixed up with her figures, the teacher switches back to German. She then continues in English for the benefit of the class. But toward the end of the lesson when she discovers the mischievious behavior of Kurt, Hans, and Trude, she will switch back to German.

What dominates most of this language alternation is the need to communicate, or the desire to please. This practice is then taken up by the students who have sometimes been the beneficiaries. Functionally bilingual children will soon know the dominant language of the teacher and use his language when speaking to him in or out of class. This respect or unconscious reaction to the other person's dominant language is transferred to the child's verbal behavior outside the class. In the street, such bilingual children even in a chance encounter, quickly sense the dominant language of their interlocutor and immediately use it. As soon as a newcomer opens his mouth these children know whether he is using his stronger or his weaker language. If he questions them in his weaker language (German or English) they will politely - and unhesitatingly respond in his other language. In school they will spend a certain amount of their time serving as handy resource persons to classmates whose German or English is not up to par.[12]

Many of these children, although they could pass for native speakers in either language and use both languages in their classroom questions, may still switch to their dominant language under stress, when tired at the end of class, or when technical words are involved. It is not unusual to listen for half an hour to a child one takes to be a native speaker of English only to find him asking the meaning of a word like *ivory*, which, he is told, means *Elfenbein* in his native German.

This pattern of free alternation is found not only in class; it also dominates all out-of-class activities - sports, meetings of the student council, meetings of the teachers and of the parents. It is, in fact, the bilingual pattern of the community; it is a form of receptive bilingualism in free variation.

One may ask what are the ultimate effects of such a pattern - its advantages and disadvantages. In order to find out, it is necessary to analyze the pattern into its two components. In the first place, there is the assumed freedom of being able at any time to express oneself in the language of one's choice with the assurance of being understood. In the second place, there is the assumption that one may hear the preferred language of the other person.[12]

Some persons see only disadvantages in this continual alternation between languages, claiming that it confuses the children and hinders their mental development. Others can see nothing but advantages, especially when a repetition of the same thing in the other language reinforces that redundancy which is essential to all communication. From the educational point of view of teaching, the crucial question may be whether concepts become clearer when they are expressed in more than one language.

5. *Educational Effects: Comprehension and Basic Skills*

What are the effects of this sort of teaching on the comprehension of subject-matter and the learning of the four basic language skills?

It is remarkable that out of a thousand students in all grades more than three quarters claim to understand everything in German or in English, and less than ten percent have stated that they understand very little of one of these languages. Since the investigation was conducted at the beginning of the school year (September to November), the latter category undoubtedly included a large percentage of newcomers (See Table 3).

As for the acquisition of the four basic language skills of listening, speaking, reading and writing, each is given an early start.

In the kindergarten there is not only the great amount of incidental talk of the teacher and the other children, but also overt teaching of listening through the repeated hearing of stories, looking at puppet sketches, and participating in listening and guessing games with eyes closed. At this level the child is not forced to speak; he is helped to express himself when he wishes. If he is shy, he may put on a mask and play the role of an animal or hide in a box and become a radio or television. Or he may be the voice of the puppets or take part in the dramatization of a favorite story or in the solution of a riddle. If he is not too shy he may be invited to tell the teacher what he has done that morning, while the teacher repeats correctly the same thing. As for vocabulary development at that level, all new words are linked with the child's expirience and explained from many angles. The important words, however, are those the child names himself.

In the kindergarten, although there is no teaching of reading as such, much that is done prepares the children for reading both in the mother tongue and in the second language. Stories are read to the children who care to listen as the teacher, who has prepared herself for the story, imitates the emotions it evokes. Some of these stories may even be read by visiting parents. Picture sequences forming a story are "read" by the children from left to right. Children cut out and group pictures of objects whose names begin with the same group of sounds. The children are encouraged to play with their languages - to form new words which rhyme, to find words that begin with the same sound as in their name, and to guess noises, for ear-training.

In the first grade, the children are taught to read in their mother tongue only, work in the second language being exclusively oral. They are also taught to read by a different method from that which is used in teaching them, the following year, to read their partner tongue; it will be global, if German, phono-visual if English, and it is likely to be taught by native primary school teachers.

Although most teachers give their lowest priority to writing, this is the most difficult skill to raise to the proficiency level of the mother tongue. As with reading, it starts with the mother tongue in the first grade, although most background work may be done in the kindergarten, where children sometimes have a wish to write words that mean much to them. Here they are encouraged to make signs with anything that is handy - even sticks and stones - regardless of size.

Writing in the mother tongue is taught in the first grade, the second grade being reserved for beginning writing in the second language. In the third grade the skill may, in a few cases, have developed to a point where the pupil may prefer to do his written work in the second language. The language of the textbook may also be a dominant factor in determining the language which the child will write. A student may always use English in class with a teacher whose dominant language is English; he may nevertheless systematically write his assignments in German.

One of the main functions of any primary school is the control of language - the teaching of the child to speak and write his mother tongue effectively and correctly. This is a difficult enough undertaking in itself; in a bilingual school it is doubly difficult, not only because there are two languages involved, but also because of the possibility of interference between them.

At the earliest school age, the problems of language mixture, in contradiction to language alternation, largely depend on the entering language behavior of the child, determined for the most part by his home environment. If the parents speak a mixed language, so will the child, for whom it is all one language. From this mixture the teacher has the job of creating two languages.

Real language mixture is the exception rather than the rule in the JFK School since most children come to school with a secure mother tongue. Any correction at the kindergarten level is mostly limited to the mother tongue. Even at that level there seems to be very little grammar mixture. At other levels newcomers will make mistakes in grammar - especially in word-order, but these are immediately corrected.

The area in which one does find a certain amount of interference is in vocabulary. And this should not be surprising, not only because there are so many words, but also because they convey the new concepts and ideas which the school transmits to the learner. Since these may be either in English or in German and not necessarily in both, it is not surprising that an English sentence may contain a German word from time to time, and vice versa.

If a German student uses an English textbook, he may there learn a word for an idea, thing or concept that is new to him. If he wishes to use this concept in an assignment written in German, it is the English word which he may use, since it is uppermost in his mind - the only one he knows. In such cases, some teachers require the students to put such words in quotation marks, indicating that they know it belongs to the other language. This same phenomenon may be observed in the spoken language used in class. A learner speaking nothing but English during the entire class may suddenly use German for one of the key words of the lesson, simply because the textbook in which he has been following happens to be German. It may be German not necessarily because a German text has been imposed but simply because this English-speaking learner - for one of many reasons - may have chosen it instead of the English text. The motivation is so strong for the pupil to fill in any blanks in his vocabulary that there is a continual process of lexical equalization which results in the steady growth of both languages.

It has often been said that all teachers are language teachers. This is not only because they teach new words and expressions along with the new ideas and concepts which they inculcate into the minds of the young, but also because they may exercise a certain control over the quality of the languages used. In the JFK School the great majority of teachers, no matter what they teach, do a certain amount of language correction - some only in class, a few only in the homework; but most of them correct mistakes when they see or hear them.

A practice which is widespread in the JFK School is that of having one pupil correct the language usage of another. This is usually done between pupils of different native languages - between native Germans and

Americans for example, and it has seemingly been most successful. It is all done in a very friendly way. The practice is sometimes pushed a step further in some classes, when the teacher asks or encourages the students to correct her own second-language mistakes. The practice is most widespread when a newly-arrived American teacher tries to find the German word for something; the native German students are generally all too willing to oblige.[12]

Not all teachers correct language mistakes in the same way. Some simply repeat the form correctly or supply the right word; some give an explanation in the language they happen to be using; others do the explaining in the mother tongue of the learner. Finally, a number of teachers use a variety of "other techniques" such as having any of the other pupils supply the correct form, using student assistants for the purpose, having the pupils find the correct form in the dictionary or in previous lessons, or actually having them practice a remedial exercise in the language laboratory. The long term effect of these language correction practices is a modification in the degree of bilinguality of the instruction.

6. *Linguistic Effects: Degrees of Bilingualism*

What has been the effect of this sort of free alternation in usage on the dominance and distribution of each of the languages involved?

In each of the various groupings, the languages may be distributed in varying amounts and varying patterns. Between the extremes of all German and all English, both languages may be used in any proportion. Some teachers teach mostly in one language; others try to maintain a balance. But the extent to which any one language is used may not depend entirely on the teacher; it also depends on the language behavior of the learners. Almost a third of the students use as much English in class as they do German, about a tenth use only one language, and all the others show some preference (See Table 4).

Except when teaching the language as a subject, most teachers either try to keep a balance between the two languages or use one of the languages most of the time, supplementing the lesson with remarks in the other language. Very few teachers completely exclude the other language in their teaching unless they are teaching language as such. But most teachers express either bilingual balance or marked dominance; few express weak dominance or unilingualism in their teaching.[12]

Teachers do not always use the same pattern of distribution, however, with all their classes. In some classes they may use mostly German as a counterweight to a textbook which is exclusively in English. Or because the textbook is English, the teacher may do most of her teaching in that language. Therefore, the appropriate measure for determining the distribution of the language throughout the entire classroom activity of the school is not the teacher but the class. By using this measure, we find that more than half the classes tend toward an equal use of both languages (57.4%) and that in more than 32% of the classes one language is dominant (16%) in each. In the remaining 10% of the classes, English dominates in a proportion of two to one, since 3.6% of these subject classes are exclusively English (as against 1.1% all German) and there are also more English classes with slight English dominance.

At all events, there is a clear pattern of language distribution in the teaching, and considering the fact that the choice and amount of each language used is left to the teacher, this pattern has turned out to be surprisingly symmetrical (See Table 1).

Conclusion

From a study of the results achieved over a ten-year period, it would seem that, if at least one of the languages of the pre-school child is secure as a medium of communication, free language alternation in early childhood education can be used with mixed language populations as a means to promote bilingualism in the kindergarten and primary grades. If however the child is linguistically, emotionally or intellectually unprepared for such an adventure, it might seem wise to concentrate on the strengthening of one of his languages before aiming at the objective of a bilingual education.

TABLE 1

PATTERNS OF BILINGUAL TEACHING
General and Non-Language Subjects
Distribution of Languages in Teaching

	TEXTS	G (1.1%)	G^e (16%)	eG (2.3%)	GE (57.4%)	gE (3.6%)	E^g (16%)	E (3.6%)
1	German							
	English							
	Both E&G					1		
	None							
2	German				2			
	English						4	
	Both E&G		5				1	
	None					4	3	
3	German							
	English				4		4	
	Both E&G		1		4		1	
	None			2				
4	German		2		3			
	English				14		3	
	Both E&G		9	2	31		2	
	None	1	6		18		3	4
5	German							
	English						3	1
	Both E&G				8	1		
	None		1		2		1	
6	German		3					
	English	1			2	1		
	Both E&G				1			1
	None				8		1	
	TOTALS:	2	27	4	97	7	26	6

Number of classes using various techniques, combined with seven different patterns of language distribution in teaching and textbook use. Techniques: (1) Part of the lesson in one language, another part in the other language. (2) All material in one language, repetition of the same material in the other language. (3) All material in one language, summary in the other language. (4) Continual alternation from one language to the other. (5) Some periods in one language, some in the other language. (6) Other techniques including explanation by the students of some of material in other language. G (German), G^e (mostly), eG (more); E (English), E^g (mostly), gE (more); GE (equal).

TABLE 2

LANGUAGE ALTERNATION OF A THOUSAND STUDENTS
(Replies given and received in the other language)

		HOME	NEIGHBORHOOD	PLAYGROUND	CLASSROOM
		%	%	%	%
Reply given in the other language	Never	47.7	57.5	33.0	32.1
	Often	10.6	6.4	13.9	18.1
	Sometimes	38.7	32.3	48.6	44.7
	Always	2.2	2.4	2.0	2.2
	No answer	.8	1.4	2.5	2.8
Reply received in the other language	Never	41.4	46.7	23.2	21.2
	Often	16.6	11.1	21.0	26.9
	Sometimes	39.8	39.4	51.7	46.7
	Always	1.5	2.0	1.8	2.3
	No answer	.7	.8	2.3	2.9

Percentage of students giving and receiving replies in one language in response to questions in the other.

TABLE 3

DEGREES OF COMPREHENSION

	IN GERMAN	IN ENGLISH
Everything	65.5%	40.6%
Mostly everything	16.8%	37.2%
Not everything	6.1%	10.7%
Very little	7.0%	9.9%
No answer	1.3%	1.6%

Answers of a thousand students to the question of whether they understand everything at school.

TABLE 4

CLASS LANGUAGE USAGE OF A THOUSAND STUDENTS

	G %	G^e %	eG %	GE %	gE %	E^g %	E %
% of students	10.9	18.8	15.2	28.9	5.3	10.8	9.5
	all German	*mostly German*	*more German*	*about equal*	*more English*	*mostly English*	*all English*

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HOW BRAIN-INJURED CHILDREN LEARN TO READ

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HOW BRAIN-INJURED CHILDREN LEARN TO READ

When you are confronted with a brain-injured two year old who is no further advanced than a newborn babe - who gives no evidence of being able to see or hear, let alone crawl or raise his head - teaching him to read isn't the first thing you think about. What you think about is how to get through to him, by any method, on any level.

Young Tommy was such a child. His eyes wouldn't follow you, or follow a light, or work together. A loud noise would make him start. You could pinch him and get no reaction. In fact, the first time we ever got a reaction out of Tommy was when we stuck pins in him: he smiled. It was a great moment, for us and for him. We had established contact.

That was when Tommy was two. By the time he was four he was reading, and thereby hangs a tale. Let me tell it to you just as it happened, because we didn't set out to teach him to read, it just happened along the way, as part of our overall problem of establishing communication.

Before I tell you about Tommy, though, let me give you a bit more background on our work. Our specialty at The Institutes for the Achievement of Human Potential in helping brain-injured children. We don't treat them ourselves at The Institutes because we learned long ago that mothers do it best. We do try to teach parents how to help their brain-injured children.

Over the past 20 years we have seen about 6,000 such children. Mostly they were brought to us as a last resort after their parents had been warned by one specialist after another that the problem was brain damage and that brain damage is irreparable.

The diagnoses varied. The symptomatic words used included athetosis, autism, cerebral palsy, cerebral dysfunction, dyslexia, epilepsy, hyperactivity, learning difficulty, mental deficiency, mixed dominance, neurological disorder, retardation, seizures, and speech retardation. The etiological diagnoses included cerebral anoxia, cerebral trauma, encephalitis, hypoglycemia, meningitis, Rh factor, thyroid deficiency, and many others.

Since my assigned topic is *How Brain-Injured Children Learn To Read* and since we didn't ourselves discover the advantages of including reading in our remedial work with the very young until about 1960, and since we feel we learn more with each passing year, let me just recap for you our experience of the last five years. I'll limit myself to those small, brain-injured patients who were under the age of five when they first came to us, who first tackled reading under our program, and who re-visited us at least once for progress evaluation.

394 children made up this group. We prescribed a reading program for every one of them as early as was practical, and all but three were reading in at least a limited way before their final visit, or before they were six, usually within a year. Some learned to read before they learned to talk. Many learned to read before they learned to walk. About a quarter of them were reading real books within 8 to 15 months.

One of them was Tommy. I won't trouble you with our diagnosis of Tommy's brain-injury. His problem could have originated in a temporary lack of blood supply before, during, or shortly after birth. The brain-injury was clearly severe, extensive, and not restricted to the cortex since there was no light reflex, no startle reflex, a positive Babinski reflex, no grasp reflex. A breakthrough in this area might or might not reveal problems of crawling, involving the pons, or problems of convergent vision, involving the midbrain, or problems of speech, involving the cortex.

We couldn't be sure about Tommy's specific problem.

It could have been that the electro-chemical impulses being sent to his brain by his organs of sight, hearing and feeling were not getting through. It could have been that they were getting through to the brain, but reaching only hurt brain cells. It could have been that they were getting through, and reaching perfectly healthy brain cells, but were not being processed, i.e., not being associated, one with another, so as to be meaningful.

If we had been able to talk directly with Tommy's brain and ask about the situation, the response might have been in effect, "Sure, the switchboard used to light up sometimes, but usually when I picked up I couldn't really hear the message, so I just stopped picking up."

In Tommy's case, when we stuck pins in him, some of those switchboard lights suddenly came on so bright that his brain couldn't help but sit up and take notice and say to itself, "By Golly, I believe somebody IS trying to say something to me."

Some of you may be thinking that I'm setting myself up an easy one. You may be thinking that the way I describe it, Tommy wasn't so much brain-injured as under-stimulated. Obviously, if you shielded a newborn child from all sensation for two years, kept him on his back in a dark room, and made no meaningful sounds in his presence, he could have a totally unhurt brain and still be unable to use it, solely for want of any opportunity to use it.

We do encounter cases almost like that. But we also get brains with undeniable damage and still make breakthroughs. The brain, after all, has from birth something like 100 billion cells, and more than ten billion of these are neurons capable of function. There are cases on record where five billion of those cells have been surgically removed and put in a glass jar, and the remaining five billion have sufficed to make their owner a superior person in every way.

Brain cells, unlike skin cells, don't seem to replace themselves when destroyed. Because of this it is sometimes assumed that problems arising out of brain-injury are irreversible. When children are diagnosed as brain-injured nevertheless do get well, some argue that they must have been misdiagnosed.

To us it seems rather as if the brain, a supremely versatile organ, is routinely able to compensate for the incapacity of almost any damaged cell by reassigning its duties to other like cells. There may be a very valid parallel here between the brain's reserve of unused cells, and the Telephone Company's reserve of stand-by equipment. I am told that minor breakdowns of telephone switching equipment often go entirely unnoticed by the public, so smoothly are the calls rerouted around the damaged equipment for handling by the stand-by equipment.

In Tommy's case, therefore, we didn't spend much time pondering whether the problem was dead brain cells, or just uneducated brain cells. We simply used an all-purpose approach that seems often to work in either of these cases. Our technique, basically, was to start shouting.

We enriched Tommy's environment, we stepped up the intensity and frequency of input through all his senses, we took him out of the hushed and darkened nursery and exposed him to lights, action, and loud talk.

In Tommy's case, as in many, many others, this approach got results. We made contact.

Our basic strategy was to try and lead Tommy through all the stages that he had missed. Tommy's body and brain, from conception to birth, had demonstrated the basic law that ontogeny recapitulates phylogeny. It was not time to see to it that the *programming* of his brain likewise took place in logical sequence with no missed stages. The lowest stages of his brain might never be able to get more out of the messages from his eyes than just the difference between light and dark, but nevertheless they needed to learn this basic lesson before the higher stages of his brain could begin to make their more sophisticated analyses of the same information.

Most children, right from the moment of birth, flail their arms and legs, and flex their eye and neck muscles. If these motions seem aimless - don't you believe it. They are, in a manner of speaking, pump-priming.

Put baby on his tummy and those flailing limbs produce motion and sensation. The brain at first probably makes no distinction between feeling, sight, and sound. Every kind of input must be converted into electro-chemical signals before it can pass over the neural pathways. Messages reach the brain, but they are at very basic levels to start with.

The brain, however, is a ball of burning curiosity and for want of any better initial procedure it applies the only strategy open to it and accepts the incoming signals and files them. In short order it senses repetitive patterns and begins to file like with like. At some point it senses repetitive sequences of patterns, and real learning begins.

The brain begins to note, for example, that one of those seemingly random arm motions, namely pushing on the right is sometimes followed by rolling to the left. Sometimes but not always. It then notes that you can't repeat the rolling to the left sensation, unless a rolling to the right sensation intervenes. Push on the right, roll to the left. Push on the left, roll to the right.

This right, left, right, left business, by the way, is one of the most fundamental discoveries Tommy will ever make, because it implies his discovery that there are *two sides* to his brain, one controlling the right, one controlling the left. If he can get the two sides working together down at the crawling and creeping level, they'll have less trouble working together later on up at the eye-convergence, depth perception level.

In Tommy's case, we had to pattern him, that is to say we had to do the flexing of his arms and legs and head for him, to make up for the fact that he had apparently missed out on learning how to do it for himself. We supplied intensive pump-priming to give Tommy's brain the kind of rudimentary input it needed to recognize that the signals coming in had a pattern that might reward the decoding.

There is something about the brain that thrives on the successful decoding of incoming signals. Let the brain once sense that the signals from the eyes can be modified by using the eye muscles and it will happily spend hours refining and refining and refining these correlations. We have all seen babies looking, looking, looking. They aren't being idle.

They are methodically learning how to look, how to correlate eye motion, head motion, body motion, and make sense out of it.

There are a billion hypotheses to be tested. Baby must first sense that there is a difference between light and dark, between noise and silence, between motion and inaction. He will later sense that there may be shapes within the light, and patterns within the noise.

One big moment occurs when a series of experiments demonstrates that when discomfort in the crotch is followed by crying, the crying may bring Mama, and Mama may bring a change of diapers.

You may well ask why, when a child cannot even walk or talk we even consider trying to teach him to read. Surely, a hard-headed ordering of priorities would suggest a concentration on getting him caught up with his peers, not a digression into an effort to push him ahead of his peers.

I can only say that within our experience children make the greatest progress when we take greatest advantage of every means at our command to engage their interest and provide them with fuel for their correlation experiments.

The visual, auditory and tactile pathways grow by use and so consequently, does the brain grow.

There is a wealth of neurophysiological evidence to indicate that the brain grows by supplying it stimulation with increased frequency, intensity, and duration through the eyes, the ears, and the skin.

A young child's biggest problem is getting the wherewithal to extend his experiments. When he'd like to crawl he is penned up. When he'd like to try putting buttons in his mouth and pins in the electric outlets, he finds these experiments denied him.

With normal children, this rage to learn is so overpowering we think nothing of responding with many a "Don't", "Not now", "Do be quiet", or "Later, perhaps" or "Can't you see Mother is busy now?"

With brain-injured children our main concern is lest the flame should flicker out, and we fan it by every means at our disposal.

Let me read you a letter from the mother of Rachel. She writes: "Since Rachel was so slow in talking we didn't dare hope for much from the reading. However, she took to it avidly -- at age 2 and 1/2 remember -- and was reading her first book within five weeks. In fact, she went so fast it worried me; I was afraid some undesirable consequence would come from reading before talking. I therefore suspended the "reading game" entirely.

I needn't have worried. When I stopped reading to her, she started reading to me. Her speech improved right along with the reading, and she even worked out her own phonetics to the point where she was pronouncing words she had never heard. Her favorite reading now is the *Giant Golden Dictionary*. She is not yet 3 and 1/2 but she already knows all of its 1,030 words, and finds great satisfaction in studying their definition. She is also reading A.A. Milne, Robert Louis Stevenson, and Dr. Seuss."

Note: Here is Rachel avidly reading the dictionary at age 3. Her brother, by contrast, is a reading problem at age 8. He, too, might have found interest in words for words' sake at age 3; he was bright enough. From age 3 to 5 he watched the educational television programs by the hour until school, to him, promised to be an exciting world of molecules, galaxies, electricity, and doing entertaining things with numbers. When he finally got to the first grade, his reading lessons were inevitably a massive let-down, a crashing bore, so great was the gulf between his 6 year old interests and the content of primers that only a 3 year old could love.

In Tommy's case our basic problem was to provide input, input, and yet more input with which his brain could play the correlation game, so we were delighted to have *print* as one more element in our bag of tricks. We would point to his toe, so he could see it, we would pinch his toe so he could feel it, we would pronounce the word, "TOE" so he could hear it, and we would print the word, "TOE" in three-inch-high letters so he could read it.

It wasn't primarily a reading lesson, rather it was a correlation game, with the happy by-product of extended togetherness. Tommy couldn't yet talk -- but in short order he could point to his toe whether you said the word, or showed him the print. Furthermore, he could correctly choose between "TOE" and "TOMMY" if you showed the printed words and invited him to show which was which.

There are some lovely surprises in this early reading game -- devastatingly logical surprises when looked up with benefit of hindsight.

It was a great moment for everyone the first time Jonathan showed he could read the word "MUMMY" -- or if reading is too strong a term let's just say he could identify it. It was therefore a bit of a letdown when, a day later, the word "DADDY" was read to him -- and he triumphantly read it back, except that he pronounced it "MUMMY". The confusion persisted for a discouragingly long time until in desperation his parents went on to the word "TOES". At that moment light dawned. It came suddenly clear to Jonathan that printed words, like human faces, differed one from another. From then on there was no stopping him.

I can't resist telling you also about Robert, age 3. Robert had been routinely talking English with his parents, and Spanish with the Puerto Rican maid. The day he learned to read the word "TABLE", he was so pleased with himself that he called to the maid to come admire his new accomplishment, and he read the word to her -- except that for her benefit he translated it and read it as "MESA".

In the light of all our experience to date it is so clear that brain-injured two and three year olds can read, love to read, and benefit enormously from this expansion of their horizons, that it is astonishing to look back and consider how long it took us to realize this. We had been working with brain-injured children for more than ten years before the children themselves taught us that for them early reading is not an added burden, it is an added resource.

It is fun for them to identify the seen or felt "TOE" with the heard word, "TOE". It is even more fun, not more work, to identify both with the printed word "TOE".

If you compound the opportunities for correlation by introducing another language the delights and rewards of the game are compounded likewise.

A mother writes: "Just as my daughter turned four, we started your reading program and also began using a German baby-sitter. Within the same four months she learned to read 90 words of English, and also learned to speak and understand more German than I learned in three years of High School. My friends say she's a linguisitc genius, but I suspect the truth is simply that very young children are all linguistic geniuses. All they need is a chance."

Another parent writes: "Our pediatrician introduced us to your method, and we lost no time in applying it. At 18 months Aaron could read five words. At 30 months he could read 170 words in Hebrew and 60 words in English, and could also do easy addition and subtraction. We don't push him. We don't have to; he pushed us."

I suppose one reason we were slow to sense the advantages of teaching speech and reading together was out of an unexamined assumption that reading was a higher skill than talking. Merely to state this assumption is to call it into question. After all, why should decoding print require any more of a child than decoding speech? The neurological processes are substantially identical.

It is obvious when you think about it that the five elements of the printed word "DADDY" differ from the five elements of the printed word "UNCLE" far more conclusively than the actual faces are likely to differ. Why should the child who can readily distinguish Daddy from Uncle by means of unbelievably subtle variations in their facial features have any problem telling the printed words apart?

It is also obvious when you think about it that printed words are usually far less equivocal than spoken words. They are far less likely to be blurred, or slurred, or run together, although, to the brain, small type is the equivalent of whispered speech.

With print it is usually also easier to take a second look if you need to, whereas a request to hear spoken words a second time often fails entirely to produce the requested direct repetition, and produces instead a restatement in different words that is no help at all in reviewing the original phrasing.

At The Institutes our advantage perhaps lay in the very fact that our subjects were brain-injured. We often had to shout to make them hear. To the extent that raising our voices helped them hear, it seemed logical to suppose that raising the size of type might help them see. We enlarged the type -- and it was a very, very productive breakthrough.

Once children have discovered that there is meaning in type, they can very rapidly make the transition from large to small as maturation of the visual pathways takes place as a product of use. It greatly expedites that first breakthrough to begin with letters three inches high. Just how fast the process can go is perhaps dramatized by the following letter:

A mother writes: "We started our daughter at 12 months. By 17 months she was demanding new words almost faster than we could letter them -- at the rate of 12 to 14 a day. Now, at 33 months, she has read, *Green Eggs and Ham, Hop On Pop* -- and even the *New York Times*."

Quite apart from the fact that very young children take great joy in making speech-and-print correlations that would leave older children utterly bored, I am prepared to theorize that there may be yet another advantage in starting early, namely the advantage of letting the brain know from the start that it will eventually be called upon to store things in threes, not just in twos.

The brain of the child who seems to be fighting the reading instruction in school may well be saying in effect, "Well, why in the world didn't they *tell* me to leave room in my system for print as well as speech? Here I have spent the last four years laboriously working out a system for easy two-way conversion of speech into meaning, or meaning into speech. *Now* they tell me I should have made it a three-way file embracing print. All I can do now is start a new three-way file to replace the old two-way file, but it'll be years before I get the new file to the point where I can safely stop looking up everything in both."

I am often asked whether premature introduction of reading won't prejudice the child's chances of making a good adjustment later on when he reaches his stage of "reading readiness". Of course, if I thought early reading was "premature" I wouldn't prescribe it, even for our brain-injured children where it could be argued that the chance might be worth taking.

At least as regards the brain-injured children I am most familiar with, I believe that reading readiness begins as early as hearing readiness.

However, this concern is voiced so often that it deserves the most thoughtful response possible. It starts, I believe, in the observation that the human brain does continue to grow at an unmistakable, though diminishing rate, from birth to about age 8. It can be theorized that the capacity of the brain to function at its highest level might have to await the completion of this growth.

Work with the brain-injured tends to suggest quite another interpretation of this matter of the significance of the postnatal growth of the brain. Take Tommy's brain. In weight and circumference it had not increased at all from birth to two years. The mere passage of time hadn't done a thing to Tommy's brain, and he was on the verge of being classed as microcephalic. However, once we got through to him, and found ways to restore in him the normal rage to learn, and once we began to give him enriched imput well beyond all norms, not only his information but also his head-size started to grow at a rate well beyond all norms.

There is overwhelmingly persuasive validation in our case histories for the thesis that the brain, like a muscle, grows in response to the demands placed on it, not in preparation for them. The brain may be the only container of which it can be said that the more you put into it, the more it will hold. Readiness is created, not come to.

In any case, the assumption that reading is a higher skill than hearing or talking or walking, and should await a more advance development of the brain does not, in our experience, stand up. It is not reading that sets man apart from the animals -- it is language. Reading is but one form of language, and the skill of understanding print in no way asks more of the brain than the skill of understanding speech.

There is only one reason why children, brain-injured or otherwise, don't learn to read as early as they learn to talk, namely lack of opportunity. Our society gives them speech in context as a matter of course; we even help them "get it" by raising our voices for their benefit, enunciating more carefully, repeating ourselves, making up rhymes, etc. Until television came along, print was largely locked up in books, or was so small as to escape notice.

What with every tiny tot now singing out on sight every brand name he has ever seen on television, there is no longer doubt that early reading just naturally goes hand in hand with early opportunity to read.

No one doubts that age 2 is an elegant age at which to learn a first, or even a second language. No teacher, no matter how skilled, ever taught any language, to any one, of any age, anywhere near as effectively as the typical 2 year old teaches his mother tongue to himself -- or for that matter his grandmother's tongue as a second language. He even works out the grammar and syntax, and can give lessons in correct usage to any adult, who did not have as good a teacher, namely himself at age 2.

While the child is learning to cope with the spoken language -- a language utterly foreign to him when he starts -- and learning to penetrate all the irregularities of the spoken language, whether spoken, whispered, shouted, slurred, or run together -- how could it be more than child's play for him to go the last mile and learn to read also? With all the spelling irregularities of the English language, they are as nothing to the irregularities of the English language as it is spoken.

It is interesting to speculate on just why *very* young children seem to have this innate linguistic competence that will only diminish with each passing year.

I am tempted to credit part of their language competence to their single-minded concentration on language. They give it full time. Later they will think of language as a means to an end; at ages two and three, language is an end in itself. Later they will be pressed for time; at ages two and three they are pressed for the wherewithal to fill their time.

Another hypothesis also attracts me though on this point I confess that I rely less on experience than on hunch. I think I sense an underlying neurological principle here: I think the processes of evolution and natural selection may have worked things out so that young creatures still under mother's care tend at first to accept rather uncritically whatever she teaches them, and only acquire the faculty to dissent after they have moved out from under mother's guidance and need the protection of independent judgment. This might account for the degree to which very young children play back every nuance of pronunciation exactly as they hear it, whereas later they'll unconsciously take a second look at pronunciations which aren't quite like Mother's.

In an appearance before a group of Space Scientists, I was once asked to give an example of this early, uncritical, uneradicable acceptance of information. I responded by inviting my listeners to give me the very first word that flashed into their minds in response to the question, "What is the moon made of?"

In closing let me say that although I have set forth one method of teaching early reading in my book, *How To Teach Your Baby To Read,* I do not hold that this is the only effective method. I think there are probably many methods that will work -- if only you start early enough.

I have been asked whether I know of cases where harm has come from early reading. Often the actual question is whether harm can come from "pushing" a child into early reading. I may say I have never seen or heard of any harm coming from early reading. I think some harm *might* come if there was too much "pushing" on the part of the parent; fortunately children have very effective ways of letting you know when you are pushing too hard.

I have always liked the story of the young lady who was asked by her anguished mother why, oh why she had queered her chances of getting accepted at an exclusive private kindergarten by giving the wrong answer when the school psychologist asked her whether she was a girl or a boy. She responded disdainfully, "A stupid question deserves a stupid answer."

I am sometimes asked whether I have ever seen evidence to suggest that a child might hurt his eyes by attempting to read print before his eyes were ready for it. No, I have never seen such evidence. As I have said, I favor starting with letters three inches high, but that is not to prevent eyestrain, whatever that may mean, but simply to make it possible for the child's immature visual pathways to deal with it until dealing with it matures his visual pathways.

I am sometimes asked how I can be so sure that the ideal age for learning reading is identical with the ideal age for learning speech. I am asked whether I can cite any controlled studies supporting my belief that reading should be considered a neurological function, just like hearing and speaking, and not an academic function at all.

I wish I could respond to such questions by reporting that within our 6,000 case histories we managed to isolate 1,000 pairs of identical twins, identically brain-injured, and had half of them reading fluently before they entered school, and allowed the other half no opportunity to learn reading until enrolled in school. I wish I could say that we then followed both groups for 40 years and determined that the early readers scored higher scholastically, rose higher economically, and produced far fewer misfits, ne'er-dowells, and criminals. Well, of course, we haven't had 40 years, we haven't encountered any pairs of identically injured, identical twins, and if we had, I very much doubt whether we could have persuaded any parent to deprive one twin of the joys of early reading, if it was clear that the other twin was thriving on it. As a further problem, I doubt we could get agreement even within this group on how to define success.

I'd like to turn the question around and challenge those who are so worried about the possible adverse side-effects of early reading to produce the studies on which they rely.

Mostly they seem to rely on a study made in 1927 in which it was found that the first graders who did the best in reading were those who had made the highest ratings in a school entrance test aimed at measuring mental age. Some interpreted this as meaning that if children entering the first grade with a mental age of 7 did better at reading than children entering the first grade with a mental age of 6, then perhaps it would follow that the lower group would be well advised to start a year later.

If this be science, give me hypothesis and conjecture every time. It leaves entirely out of account the liklihood that the tests were measuring reading aptitude rather than mental age. It ignores the possibility that whatever the tests were measuring, whether mental age or reading aptitude, those who got the highest ratings might have been those with some extra measure of preschool exposure to books and reading. It *starts* from the premise (rather than tests the premise) that reading instruction should start in the school rather than earlier.

In terms of controlled studies, the best we have are those conducted by Dolores Durkin in the Oakland Public Schools. She identified the first graders who were reading when they first enrolled, and she followed them through six grades to see whether they took any harm from reading early. She found no evidence of adverse consequences, and much evidence of favorable consequences. She found, what is more, that those who started ahead - stayed ahead.

Although our work at The Institutes does not satisfy the requirements of a controlled study, I am personally satisfied that we are on fairly safe ground in drawing certain basic conclusions. One is that children -- ours anyway -- can best learn to read in exactly the same way they learn spoken language. That is to say, they can learn to attach meaning to the printed words they see in exactly the same way they learn to attach meaning to the spoken words they hear. Neurologically these are almost identical processes. If there is a difference, then perhaps reading can be learned somewhat more easily, and at a somewhat earlier age, granted equal opportunity.

I am further satisfied that there are unqualified advantages to learning reading and speech at the same time instead of deferring reading until school-entering age.

Because I have no controlled studies to offer, let me offer instead a few more isolated reports of successful early reading, selected from the many hundreds of similar letters in The Institutes' files.

A mother writes:

"None of my friends believe Suzy could really read books at age two and a half -- until they heard her. Then all, without exception, decided to try it with their own children, and all are having successful results. I am fully convinced that it is far easier to teach a very young child to read, than to wait until age five."

A school headmaster writes:

"At the Waterloo Primary School, we recently admitted a 5 year old who was already reading at the level of a 9 or 10 year old. I feel she has a great advantage over the others, but we are going to have an interesting time meeting the challenge she presents to us...."

A father writes:

"At age three and a half my daughter's favorite game is pretending she is a teacher and reading to her dolls. In just over a year on the program she can read 25 books."

Another mother writes:

"Once our son finally began to talk, he had a lot to say about things that had happened earlier, so I am sure you are right about children taking things in long before they can play them back."

Another father writes:

"You will be pleased to know that your method works with Mongoloids, too. Just 3 months ago, we began it with a boy of 6 years, and already he can read 24 words easily. What's more, the reading has greatly improved his speech."

There is, of course, much, much more information in the files of The Institutes for the Achievement of Human Potential than could be summarized or even referred to in this Paper. Any investigator wanting to dig deeper into the cases I have cited would be most welcome to write us for further information.

Additional information is also to be found in the following four publications, each by one of the Directors of The Institutes for the Achievement of Human Potential.

Brain-Injured Children by Evan W. Thomas, M.D.	(Chas.C.Thomas	$7.00
Human Neurological Organization by Edward B. LeWinn, M.D.	(Chas.C.Thomas	$8.50)
A New Start For The Child With Reading Problems by Carl H. Delacato	(McKay	$5.95)
How To Teach Your Baby To Read by Glenn Doman	(Random House	$5.95)

THE DUAL LANGUAGE PROCESS IN YOUNG CHILDREN

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The outstanding intellectual achievement of any child is his acquisition of language. When a child acquires two languages and uses them effectively in controlling the world around him, his accomplishment is a remarkable triumph in human learning. The young child who lives and grows in the midst of dual language opportunities may enjoy great benefits of mental flexibility or may suffer great burdens of mental confusion. Whether his early exposure to languages other than his mother tongue becomes an asset or a liability is dependent upon a number of highly complex variables. Among these are genetic endowment, parental education, economic status, cultural group, social class and life opportunities. In addition to these influences, both internal and external, there are other factors--the age at which the second language learning begins, the degree of proficiency in the first language, the quality of the language experiences, the relative political positions of both languages and the acceptance afforded the speaker in each cultural milieu.

The Child's First Language

In the natural course of his total development, the normal child acquires his first language, the system of sounds which accompanies his experience. As the child encounters his physical and psychological world, he takes in information. He receives sensory data, images, symbols and sounds. He sorts a vast amount of undifferentiated stimuli and begins to attach meanings to them as he becomes increasingly aware of objects, people and events in his environment. These are his personal realities which he encodes in sounds imitative of those who care for him. He soon discovers the wonder and the power of words. He understands what others are saying to him and can _act_ or choose _not to act_ in response. Others understand him and can respond in return. There are now perceptual constants and conceptual certainties to be shared by means of a mutually-understood symbol system. He perceives, listens, talks, smiles, feels good about himself and about others. His own world is a fairly steady, reliable place. The specific symbols used to describe and to explain it are reasonably dependable and unchanging. Real and symbolic boundaries expand consistently with enriched experiences and improved language. Mastery in first language learnings is commensurate with the child's inner potential and the diverse conditions outside him.

The Child's Second Language

The young child may begin his second language at precisely the same moment when first language growth gets under way. If parents, grandparents, household members, or others responsible for his infant care use a second language, then, he learns to listen, to speak and to attach meanings to sound systems of more than one speech community. When both languages are available from the start, the child may become very proficient in one language, partially competent in the second, equally poor in both, or any other combination of possiblities ranging across the many dimensions of sounds, structures, vocabulary and semantics of both languages. The variations are endless and unique to the individual child. Should the child have a good start on his first language prior to his second language exposure, there are some previous learnings which he may bring to his new language task. He already has a background of experiences, sensations, percepts, images, concepts, sounds and symbols. He possesses a storehouse of information about language, what it is made of and how it works. He has imitated and internalized the symbol system of his first language. The extent to which he has done this is dependent upon the depth and breadth of his initial language acquisition. He now has to learn to attach new sounds and/or different combinations of them to the reservoir of knowledge he has presently stored. He may also have to undergo new experiences, specific to the cultural environment in which the new speech community exists. It is necessary for him to listen to the second language, to understand which sounds stand for which reality he already has encountered, to meet new, unfamiliar realities, to remember the order of sound combinations, to imitate accurately the available speech models and finally, to speak fluently. The degree of success which he enjoys in the dual language learning process is determined by the strength of his first language, the existence of interference, the number and kind of experiences, the accompanying feelings and expectancies and countless other forces which shape human speech. It is difficult to state whether he is to be blessed with a second-language accomplishment or burdened with a second-language handicap. Like matrimony, it may be for better or for worse, for richer or for poorer but it may be hazardous to predict the outcome at best unless the concomitant conditions are known.

Two Languages - Burden or Benefit?

The literature is replete with studies which report the destructive effects of dual language learning on speech production, concept acquisition, vocabulary growth, intellectual power, social adjustment and personality development. Negative impact on speech includes errors in articulation, voice distortion, faulty rhythm and inappropriate stress. Inhibition of language maturity is seen in fewer words, shorter sentences, confused word order, grammatical errors and poor idiomatic expression. Slowness in intellectual growth is related to the imprecise use of two languages inadequately developed to serve as instruments of thought. Educational retardation begins early when written language tasks of reading, spelling and handwriting are insufficiently supported by a broad base of oral language abilities. Access to the fields of knowledge by way of the weaker language results in limited achievement. Personality disorders and character disturbances reportedly accrue from the tension and stresses attendant upon straddling two different cultures, seeing the world from two different points of view and using two different symbol systems to express them. There is certainly no shortage of ordinary perils during the period of childhood. From these gloomy prophecies of the many deleterious consequences, the weight of dual language learning is seen as overwhelming.

There have been raised, however, the dissenting voices of theorists who state emphatically that the problems attributed to dual language learnings in early childhood have been grossly exaggerated. This more positive view insists that the failure to control significant research variables has led investigators to overstate the severity of speech difficulties, to describe inaccurately language developmental delays, to distort unrealistically intellectual limitations, to emphasize unduly educational retardation and to magnify without adequate documentation personality disintegration or character disorders. Many scholars claim advantages of dual language learning both for the individual and for the society in which he lives. Jensen has provided an excellent research summary of the effects, both good and bad, of childhood bilingualism.[2] Because increasing contacts among different nations and diverse individuals is greater than ever before in Man's history, adequate communication skills have become prerequisites for survival. It is imperative to examine all the possibilities, good and bad, and to draw conclusions based on more careful research.

Dual Language Learning and Thought

The relationship between a child's acquisition of language and his ability to think is not very clearly understood. Three major positions are to be found among the scholars. Language and thought are identified as the same entity; they are said to be separate entities, or they are considered as somewhat loosely related entities. It is very difficult to observe what happens when children are engaged in thinking and it is almost impossible to arrive at a univerally acceptable definition of thought. Among the several raw materials of thought, however, are symbols, both verbal and non-verbal. Thinking then, may rely totally upon the quantity and quality of verbal symbols; may depend partially upon these language proficiencies; or may not require specific verbal abilities at all, depending upon the theory of language-thought relationships espoused. If and when children use verbal symbols as an accompaniment of thought, this inner language[5] is usually the mother tongue. It is reasonable to assume that the more precise the language used, the clearer the thinking results, when other conditions remain the same. Language carries content--ideas, generalizations and relationships concerning the child's reality. When the child's experiences and encounters with the environment are clarified, stored and available for retrieval in careful precise terms, it would appear that he would have an incisive instrument to use as his intellectual power in reasoning, judging, remembering, and understanding unfolds. There is great need to explore further the language-thought relationship and to consider the effect of dual language learning on the cognitive processes. Central to this question is a consideration of refining the mother tongue even when it is not the dominant language of the community. If there is found a valid need for inner language for purely personal purposes in reflecting, musing and thinking, then, the social purpose of using expressive language in communicating must not be the only emphasis in language learning.

The Best of Both Languages

Fishman has stated that more than half of the world today uses more than one language while engaging in the activities basic to human needs.[1] With rapid technological advances in transportation and communication, this proportion of bilingual endeavors is bound to increase. It is important to consider thoughtfully the education of those children who are presently living and growing in dual language settings. The language variables must be arranged to create a maximum of benefits and a minimum of burdens. There appear to be several known conditions conducive to promoting success and preventing failure for children engaged in the acquisition of two or more languages. It would seem that parents and/or teachers should keep the languages growing in separate contexts so that coordinate language systems may result. Coordinate systems appear less subject to interference and confusion.[3] It is vital to have the best language models available in both languages as children will readily imitate errors in phonology, intonation and structure. As language, one or several, grows out of experience, it is essential to provide children with a rich and varied background of environmental encounters so that sensory impressions, images, percepts and concepts may be tested, verified and encoded in language. The press for early school achievement in the weaker language should be avoided. Since the school world, even on the primary levels, demands an extraordinary proficiency in receptive and expressive use of verbal symbols, every effort must be exerted to insure that the child's language competency is commensurate with the school's expectations. When the language of the home is not that of the school nor of the majority culture, extra care must be taken to engender feelings of acceptance and equality. A child's first language learnings take place in the warmth and intimacy of his family. These learnings carry with them memories and emotions which are part of himself. When his language is valued, he feels himself and all that is a part of him valued as well. Excessive demands for control of the conventions of the writing systems in either the native language or the second one should not be made. Reading and writing skills require responses to a set of visual symbols superimposed upon auditory symbols. It is logical to expect that the normal child will read and write first the language which he controls well in its oral form. The implications of arranging a program of dual language learning which provides for an appropriate sequence of skill development are self-evident. Though many of the social, economic and political variables affecting the outcomes of the dual language learning process are outside the sphere of influence of educators, such factors as acceptance of the child's uniqueness, respect for his native language, appreciation of his cultural heritage and attention to his specific language requirements will contribute greatly to his successful acquisition of two or more languages. The world needs speakers of many languages to share new ideas, to exchange technological knowledge, to preserve history and to talk together for peace in the universe. Wherever the dual language talents of young children are found, they must be nurtured and preserved.

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THE COGNITIVE STRATEGIES OF LANGUAGE LEARNING

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Paper read at the Conference on Child Language sponsored by the International Association of Applied Linguistics and its Commission on Child Language (Stockholm), The Center for Applied Linguistics (Washington), and the American Council on the Teaching of Foreign Languages (New York), in Chicago, November, 1971.

Some things children seem to learn naturally; others they have to be taught. Unaided, they seem to learn to walk and to perceive the world visually; on the other hand, nearly all children have to be taught arithmetic. Language is a peculiar embarrassment to the teacher, because outside school children seem to learn language without any difficulty, whereas in school with the aid of teachers their progress in languages is halting and unsatisfactory. It is common experience that when translated to a town where their native language is not spoken children will become reasonably proficient in the new language in the space of six months. It is equally common experience that after six years of schooling in a second language, whatever the teaching method, most children emerge with a very poor command of the language. The first set of experiences shows that children are possessed of a very powerful device for learning languages; the second set of experiences shows that the school harnesses this device only in a most inadequate manner. This in turn argues that we have a poor understanding of the natural device for learning languages. My paper is about this device, about common beliefs as to its scope, and about the implications of what we know of the device for the language classroom.

The function of the human language learning device is defined with reference to a natural language such as English or French. If we could specify exactly the code which we call English, we would have taken the first and most important step in the direction of specifying the nature of the language learning device. The second step would be to specify the actual learning process whereby a person grapples with the code and masters it. The trouble with this approach is massive, however: we are very far indeed from being able to specify a code like English, and we are even farther from being able to specify the language learning process. Of any natural language we know that it has a lexicon, a sound system, and a set of structural rules. But anyone who is even vaguely familiar with linguistics knows that each is the subject of vigorous controversy. Katz and Fodor (1963) have made an interesting beginning in the description of the sort of lexicon which English users carry about in their head; Quillian (1967, 1968, and 1969) has gone further than they did, and attempted to build a computor model of a human lexicon; but I (Macnamara, 1971) have argued elsewhere not only that their work is defective in detail but that they have taken the wrong direction. The obscurities of phonology and syntax are acclaimed in every book and paper one reads on these subjects. The work of structural and transformational linguists amounts to a very considerable deepening of our understanding of the rules of phonology and syntax. However, every linguist would I think agree with Professor Lakoff's (1970) statement in a recent paper that we can scarcely claim to have done more than introduce the subjects.

The essential obscurity of language is in its loose relationship to that elusive and inapprehensible process which we call thought. A single word, like back, can have many meanings (e.g., rear part of a body, to wager), while a single object or idea can be expressed by several words (e.g., drink, intoxicated). A single syntactic device can have quite different semantic functions (e.g., I have a pin; I have a pain), whereas a single semantic relationship can be signalled by means of a variety of syntactic devices (e.g., My hair is black; I have black hair). To make matters even worse, many ideas are conveyed without the use of any explicit linguistic device. For example, the directive, close the door, does not carry any explicit indication that you has been deleted and is understood. The problem is even more deeprooted than this example implies. The command, put on your shoes, does not express the you, but neither does it specify where the shoes are to be put (on the feet, not on the hands), nor even on whose feet (yours rather than mine). So rich and powerful is the human interpretative system that much can be left unsaid. To express everything one intends is to be a bore - it may even be impossible in principal. One result of all this is that the line which divides language and thought is a very thin one, and there is usually doubt about where it should be drawn. In this connection see Uriel Weinreich's (1966) reintroduction of the medieval problem of relating semantic and grammatical categories. He raises serious doubts about whether one can usefully call categories such as _noun_ and _verb_ grammatical, while one calls categories such as _animate_ and _inanimate_ semantic. On the other hand, Noam Chomsky (1965) had great problems deciding whether to treat the selection restrictions on lexical items as grammatical or semantic. In other words, should we regard _The stone loved_ as ungrammatical or just nonsense. All in all, then, it is difficult to say what we learn when we learn a language.

It is even more difficult to specify the learning process. Several factors which have an effect on certain types of learning have been isolated by psychological research. But I think it fair to say that the core of the process still eludes us. However, I will return to this topic later in my paper.

Cognitive basis of language learning.

If we were to ask teachers, as I have often done, what is the essential difference between the classroom and the street as a place in which to learn a language, they would answer _motivation_. I am sure that the teachers are right; we do not seem to have adequately motivated children in classrooms to learn a language. Notice, however, that in so answering, teachers avoid the problems with which we have been dealing. They do not seek in the essential nature of language or language learning for the difference between the classroom and the street. Neither do they attribute the difference to the essential nature of the language learning device. They seem to say, rather, that whatever the nature of that device, it does not function properly unless a person is highly motivated to make it function.

I have argued elsewhere (Macnamara, in press) that infants learn their mother tongue by first determining, independent of language, the meaning which a speaker intends to convey to them, and then working out the relationship between the meaning and the expression they heard. In other words, the infant uses meaning as a clue to language, rather than language as a clue to meaning. The argument rests upon the nature of language and its relation to thought, and also upon the findings of empirical investigations into the language learning of infants. The theory is not meant to belittle the child's ability to grapple with intricate features of the linguistic code. These must be grasped even if the clue is usually - though by no means always - to be found in meaning. The theory claims that the main thrust in language learning comes from the child's need to understand and to express himself.

Contrast, now, the child in the street with the child in the classroom. In the street he will not be allowed to join in the other children's play, not be allowed to use their toys, not even be treated by them as a human being, unless he can make out what they say to him and make clear to them what he has to say. The reward for success and the punishment for failure is enormous. No civilized teacher can compete. But more to the point, the teacher seldom has anything to say to his pupils so important that they will eagerly guess his meaning. And pupils seldom have anything so urgent to say to the teacher that they will improvise with whatever communicative skills they posses to get their meaning across. If my analysis of infant language learning is correct, as I believe it to be, it can surely explain the difference between the street and the classroom without placing any serious strain on the analogy between first and second language learning.

The solution then is to make the language class a period of vital communication between teacher and pupils. How simply that is said! Of course I have no practical hints. Though I was a language teacher for several years myself, that was a long time ago and in any case I was a slave to public examinations. Moreover, there is no point in my entering into competition with talented teachers who did not surrender their minds to the last half century's talk about methods, and always saw language as essentially linked to communication. Nevertheless, the theory I am proposing does suggest some broad strategies which I may mention with impunity.

An infant could not guess what his mother was saying to him unless there were a good many surrounding clues. Mother usually talks to a small child only about those things which are present to the senses, things that the child can see, feel, smell, taste, hear, things which are happening or which the child or she herself is doing. Nearly always, too, a mother's speech carries exaggerated intonational patterns. Indeed a mother's speech to an infant is intonationally often quite distinct from her speech to others. All of this together with the mother's facial expressions is a strong clue to her meaning or intention. It enables the child to determine her meaning and use it as the key to the code she uses to express her meaning in. The teacher, then, would be wise to provide as many aids as possible to his meaning. And he should encourage the pupils to guess. This probably implies that he should be slow to give the child the meaning in the child's native tongue.

Parents are proud of any effort which a small child makes to express himself in words. They welcome his phonological innovations; they accept his bits of words; and they understand his telegraphese. As a matter of fact, parents seldom correct a small child's pronunciation or grammar; they correct his bad manners and his mistakes on points of fact (see Gleason, 1967). Somehow, when a child is vitally concerned with communication he gradually gets over his difficulties and eradicates errors, at least to a point where society accepts his speech. That is, vitally engaged in the struggle to communicate and supported by the approval of his parents, he makes steady progress. His parents' attention is on his meaning, not on his language, and so probably is his own. And curiously he and his parents break one of psychology's basic learning rules. Psychology would advise that he should be rewarded only for linguistically correct utterances, whereas parents reward him for almost any utterance. But then the folk wisdom of the Italians, which is older than experimental psychology has created a proverb which gives the lie to psychology and agrees with parent and child -- sbagliando s'impara (by making mistakes we learn). Perhaps in all this there is a lesson for the schoolmaster. Perhaps he should concentrate more on what the child is saying and less on how he says it. Perhaps the teacher should lay aside the red pencil with which he scored any departure from perfection, and replace it with a word and a smile of encouragement. The Irish too - not to be outdone by the Italians - have their folkwisdom: mol an óige agus tiochfaid sí (praise youth and it will come).

Some dubious folklore.

Just to show I'm not a complete reactionary who accepts everything from the bosom of the race, I will devote the remainder of my paper to a critical analysis of two common beliefs: (1) the child learns a language informally, whereas the adult learns it formally; (2) the adult is a much poorer language learner than the child.

From what I have said about the possibility of specifying the elements and rules of a language, it follows that the term formal learning can be applied to language in only the loosest sense. If we cannot reduce language to formula, we cannot learn it by formula. The extent to which we cannot formulate a language is the extent to which our learning of it cannot be formal, and this is to a very great extent. On the other hand there are useful rules or formulas which capture some of the regularities of a language. It is the case that these are often explicitly taught to adults, and they are never taught to infants. May we not speak of the adults learning as being to this extent formal, and that of the infant as informal? And if so, is this an important difference? A firm answer is of course impossible, but the issue is an interesting one which merits close attention.

We are familiar with all sorts of rules which will serve to illustrate the problem. The beginner at chess is taught the rules of the game and when asked he is usually able to state them. On the other hand the boy who is learning to cycle is usually not taught the rules of balancing the bicycle, nor does anyone explain to him the complications of following curvilinear paths at different speeds as he alternately presses on the left and right pedals. Furthermore the cyclist cannot normally state the rules he applies. Rules, then, can be possessed in an explicit or stateable form, or they may not. Take now the man who is learning to ski. His tutor gives him many rules to follow, but he also tells him that he must not be satisfied until he has formed the rules in his legs. As he makes progress he begins to feel the rightness of the rules; they take on a new existence in him, though he still can state them in the explicit form in which he learned them.

It is my belief that in the skilled performer all rules must exist in a non-explicit form; they may exist in an explicit form as well. It is further my belief that in the initial stages of learning explicit rules can guide the construction of structures which implicitly incorporate the rules. It is these structures, not the explicit rules, which control skilled performance. This I believe to be true even of the chessplayer: he does not when playing recall explicitly all the rules which inform his perception of the board. However, the gap between explicit rules and performance is less in chess than in skiing. From my earlier remarks on language it follows that language is closer to skiing than to chess, at least in the relationship between rules and performance.

Though we cannot be certain that infants are unconscious of all the linguistic rules which they develop, they certainly must be unconscious of many of them. Similarly, the successful learner of a second language has a great many implicit rules which he is unable to formulate. And only when he has developed structures which implicitly incorporate those rules which he learned in an explicit form will he be able to apply them with mastery.

What I want to say is this. The human language learning device serves to construct in a non-explicit form a set of non-conscious rules which guide listening and speaking. The device can either extract the non-explicit rules from the corpus of the language which is to be learned, or it can construct them on the basis of explicitly stated rules of the sort one finds in grammar books. The whole process is very obscure indeed, but I don't see anything against explicit rules and with two provisos, they are probably a great help. First, the student must not expect to find rules for everything; he must trust his common sense or linguistic intuition. Second, he must learn to get on as soon as possible without explicit rules; he must be prepared to surrender himself to their automatic operation. I imagine that the only reason for distrusting explicit rules is the fact that some people have difficulty in abiding by these two counsels.

The second common belief which I wish to discuss is that one's language learning device atrophies rather early in life. The evidence for this is that babies pick up their mother tongue with what seems like great ease, and young children in suitable environments pick up a second language with little trouble, whereas adults seem to struggle ineffectively with a new language and to impose the phonology and syntax of their mother tongue on the new language. The argument has been supported with some evidence from neurophysiology (Penfield and Roberts, 1959), but the value of this evidence is dubious, to say the least.

I suspect that the evidence which most supporters of the theory draw upon confounds two phenomena, the child in the street and the child in the school. Small children don't go to school; older ones usually learn languages in school rather than in the street. We have already seen that these two phenomena must be distinguished. But besides all this many families have the experience of moving to a new linguistic environment in which the children rapidly learn the language and the adults don't. This happened frequently to English families which moved to one of the colonies, such as India. In such cases, the linguistic experience might well be attributed to unfavorable attitudes towards the new language which the parents but not the children adopted. However, Italian families which migrated to the United States often met with a similar linguistic fate - the children learned English, and the parents, despite favorable attitudes, did not. Is this conclusive evidence that language learning ability atrophies?

No! Let us take clear examples; let us compare a man of forty with an infant. We could not prove that the man was less skilled in language learning unless we gave the man an opportunity equal to that of the child to learn a language. We would need to remove the man from the preoccupations of his work and supply him with a woman who devoted a large part of her time and energy to helping him to learn the language. Further, the woman would have to behave just like the mother of a small baby, which among other things would include treating anything the man said in his mother tongue as she would treat a child's babbling. Naturally such an experiment has never been carried out, and for that reason there are almost no grounds for the general fatalism about adults' ability to learn languages. On the contrary, what experimental evidence we have suggests that adults are actually better than children. Smith and Braine (in press) found adults superior in the acquisition of a miniature artificial language, while Asher and Price (1967) found adults superior at deciphering and remembering instructions given in what to them was a foreign language. Thus there are grounds for optimism in this area.

However there is evidence that adults and even teenagers generally have difficulty in mastering the pronunciation and intonational patterns of a new language, or even a new dialect. Labov (1966) found that persons who moved to Manhattan after the age of twelve seldom came to sound exactly like persons who grew up there. Similarly, persons who learn a language after adolescence usually sound a little bit foreign. But this does not mean that they do not communicate in that language very effectively and even quite normally. It is unwise to overemphasize their phonological difficulties. Apart from this there is no evidence that after adolescence one cannot learn a language as rapidly and as well as a small child.

Conclusion

One of the main tasks of linguists and psycholinguists is to make a systematic assault on the language learning device which is so remarkable in man. At present we know nothing of it in detail. We do, however, know that it is essentially geared to human thought and to its communication. It does not seem to function at all well unless the learner is vitally engaged in the act of communicating. This seems to be the reason why language teachers have laid such stress on motivation. It is my belief, however, that there has been quite a lot of confusion about the nature of such motivation. It has commonly been conceived (see for example Lambert, 1967) as a general desire to learn a language, and some attention has been paid to different grounds, "instrumental" or "integrative", for such a desire. This approach has led to interesting results. However, the logic of my paper demands a quite different emphasis; it demands that we look for the really important part of motivation in the act of communication itself, in the student's effort to understand what his interlocutor is saying and in his effort to make his own meaning clear. All this is not of course unrelated to a more general motivation to learn a language. The fact that superior attainment in language is associated with integrative motivation argues for a close relationship; after all the integrative attitude is defined as a general desire to communicate with speakers of the new language. But more pressing for most students than a general desire to be able to communicate at some future date is a specific desire to be able to communicate in some actual situation where what is being communicated is of vital concern to the persons involved. It is in the exploration of such specific motivation that I look for substantial advances in language teaching.

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DEVELOPING CURRICULUM
FOR
BILINGUAL EDUCATION

Spanish Curricula Development Center

With the expansion of bilingual education, the need for curricular resource materials in the home language has increased proportionately. Neither curriculum components of bilingual projects nor commercial interests have been able to keep pace in curriculum development. To help meet the growing demand, the Bilingual Education Program Branch of the U. S. Office of Education has set in motion acquisition and production projects of national scope. One such project is the Spanish Curricula Development Center, which is charged with producing Spanish curricula materials for the primary level. As the materials are written, they are piloted in local bilingual programs, then revised and prepared for distribution to other bilingual projects serving as field trial centers in various parts of the country. With the assistance of a curriculum adaptation network supported by federal and private foundation monies, these preliminary materials produced as a general edition will be converted to multiple editions which reflect the inputs of local and regional interests.

for the staff:

Ralph F. Robinett
Project Manager

1420 Washington Avenue, Miami Beach, Florida 33139
September, 1971

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EMERGENCE OF A NEED

From 1963 when renewed interest in public bilingual education gave impetus to a handful of bilingual programs to 1967 when federal monies made it possible to subsidize more than 70 such experiments, the home language held a low position in curriculum priorities. In 1970, with nearly double the 1967 centers under Title VII ESEA and numerous others funded from various sources, the need for home language materials caused the Bilingual Education Programs Branch of the Office of Education to fund multiple efforts to provide curricular materials.

MATERIALS ACQUISITION PROJECT

One of three major efforts to provide curriculum support materials is the Materials Acquisition Project, located in San Diego. The function of this project is to identify commercially available materials and, with the help of cooperating centers, determine their suitability for dissemination on a larger scale.

This solution to material needs has the obvious advantage of immediate availability of a wide range of material which has been developed by specialists in countries where the home language is the medium of instruction.

Unfortunately from our point of view, such materials often assume a socio-economic and geo-political background markedly different from those of the target populations in bilingual programs in the United States. The underlying assumptions in such materials tend to make them the least relevant to the needs and interests of the pupils and communities we must serve.

Materials so acquired will serve to great advantage as supplementary resources, though they tend to be fragmentary in a situation which demands as well mutually supportive curricula. Limitations of such resources do not negate their potential contributions.

NATIONAL CONSORTIA FOR BILINGUAL EDUCATION

A second major effort to help fill the materials void centers around the refinement of curriculum produced at the local level in the many bilingual projects now in operation. Among the limitations of grass roots curriculum efforts in bilingual education thus far has been the built-in duplication of effort in areas which are not necessarily areas where uniqueness is a critical factor. A further problem in the long range aspirations for such materials stems from the limited resources local materials development components have had at their disposal in the production of their materials.

This second major effort has been undertaken in Fort Worth by the National Consortia for Bilingual Education, among whose functions is to identify promising local materials. Once identified, and with the help of cooperating centers, such materials can be further developed as necessary and made available to other centers seeking curriculum support.

As in the case of the Materials Acquisition Project, the National Consortia offers promise of early availability of a wide range of materials at all levels, and, in addition, the critical attribute of greater relevance to the target populations.

SPANISH CURRICULA DEVELOPMENT CENTER

A third major effort to provide home language resource materials is in the actual production of curriculum guides and support materials, and to this end the Bilingual Education Programs Branch funded the Spanish Curricula Development Center in Miami. The Center is charged with the development of multidisciplinary resource kits to help support the major areas of instruction in Spanish at the primary level.

Equally important to the product for which the Center is responsible is the process by which the product is developed. In this instance, as the product is being developed for national use, it became immediately important to build in credibility conditions to help ensure that the product would ultimately be acceptable as well as useful resource material for the three groups for whom it is being designed: Mexican-American, Puerto Rican, and Cuban. The first condition was to form an Advisory Council clearly representative of the populations to be served. The second was to recruit staff with similar ethnic and geographic qualifications. The third was to build in a feedback and revision process which would ensure that the final product was responsive to the ethnic and geographic needs of the pupils under widely varying conditions.

At present the Spanish Curricula Development Center is organized into ten teams. Five develop the basic instructional guides in Language Arts, Social Science, Science/Math, Fine Arts, and Spanish - Second Language. Three contribute directly to kit production in the development of assessment activities, the editing of manuscript, and in kit manufacture. Supporting the production effort is an administrative team, and responsible for dissemination and feedback is a field team. Evaluation is independent of other teams of the project, both in its formative and summative dimensions. In each team in which decisions are made relative to curriculum content, every effort has been made to maintain an ethnic balance in staff distribution.

During the first semester of operation in 1970-71, most of the time was devoted to staff development and to analysis of available curricula which might contribute to the development of materials by the Center. The second semester was devoted to the production of Curricula Kits 1-8, in order to have materials ready for field testing in the fall of 1971. During 1971-72, the Center will produce Kits 9-16 and 17-24, corresponding to the second half of the first grade and the first half of the second grade. Broadly speaking, the Center is committed to producing materials one semester ahead of their use in field trial centers, 48 kits in all.

CANBBE

The Curriculum Adaptation Network for Bilingual Bicultural Education (CANBBE) was funded in the summer of 1971 with monies from Title VII ESEA and from the Hearst Foundation. The function of CANBBE is two-fold: to facilitate the feedback process leading to the development of regional editions of the Curricula Kits, and to create supplementary and complementary materials which are beyond the resources and commitment of the Spanish Curricula Development Center.

With executive offices functioning through the National Urban Coalition and four regional offices attached to local education agencies in San Diego, Milwaukee, San Antonio, and New York, CANBBE is fiscally and administratively independent of the Spanish Curricula Development Center. However, the two projects do have interlocking Advisory Councils, and the success of the total effort requires a high degree of cooperation between both projects.

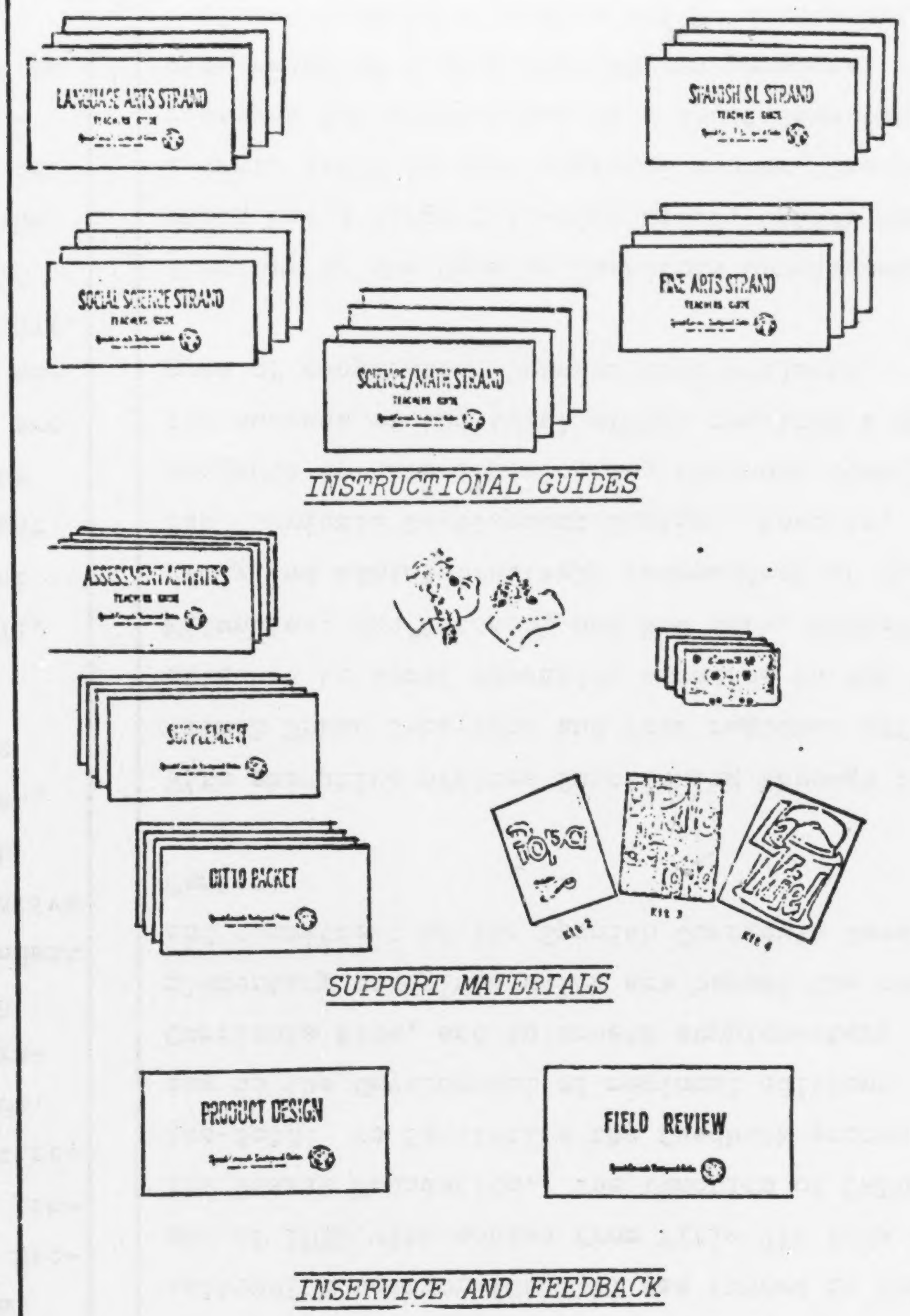
Contrary to the Spanish Curricula Development Center which has a large full-time staff, CANBBE maintains a small staff in each regional center, leaving larger reserves for contracting on a short-term basis a wide range of highly specialized personnel in each region who would otherwise not be available.

KIT COMPONENTS

Each of the curricula kits as projected is designed to serve as core resource material for approximately two weeks. Central to each kit are guides for five areas of instruction: Language Arts - Vernacular, Social Science, Science/Mathematics, Fine Arts, and Spanish - Second Language. To support the teachers in their evaluation of pupils' progress, each kit includes assessment activities.

As the instructional and assessment activities are carried out, the teachers will need a variety of audio-visual and manipulative materials. Those provided in each kit are a supplement of illustrations, a ditto packet for duplicating multiple copies of visuals and individual seatwork, and a tape cassette presenting songs and background music. Accompanying the first kit is a packet with two puppets for use in stimulating oral language development, and accompanying subsequent kits are multiple copies of pupils' books for use in the Language Arts and Spanish as a Second Language strands.

To facilitate the orientation of teachers and administrators involved in the field testing of the kits, a Product Design, or overview, is provided. To facilitate the feedback and revision process, a Field Review is supplied for each kit.


LANGUAGE ARTS STRAND
SOCIAL SCIENCE STRAND
SCIENCE/MATH STRAND
FINE ARTS STRAND
SPANISH SL STRAND
INSTRUCTIONAL GUIDES
ASSESSMENT ACTIVITIES
SUPPLEMENT
DITTO PACKET
KIT 2
KIT 3
KIT 4
SUPPORT MATERIALS
PRODUCT DESIGN
FIELD REVIEW
INSERVICE AND FEEDBACK

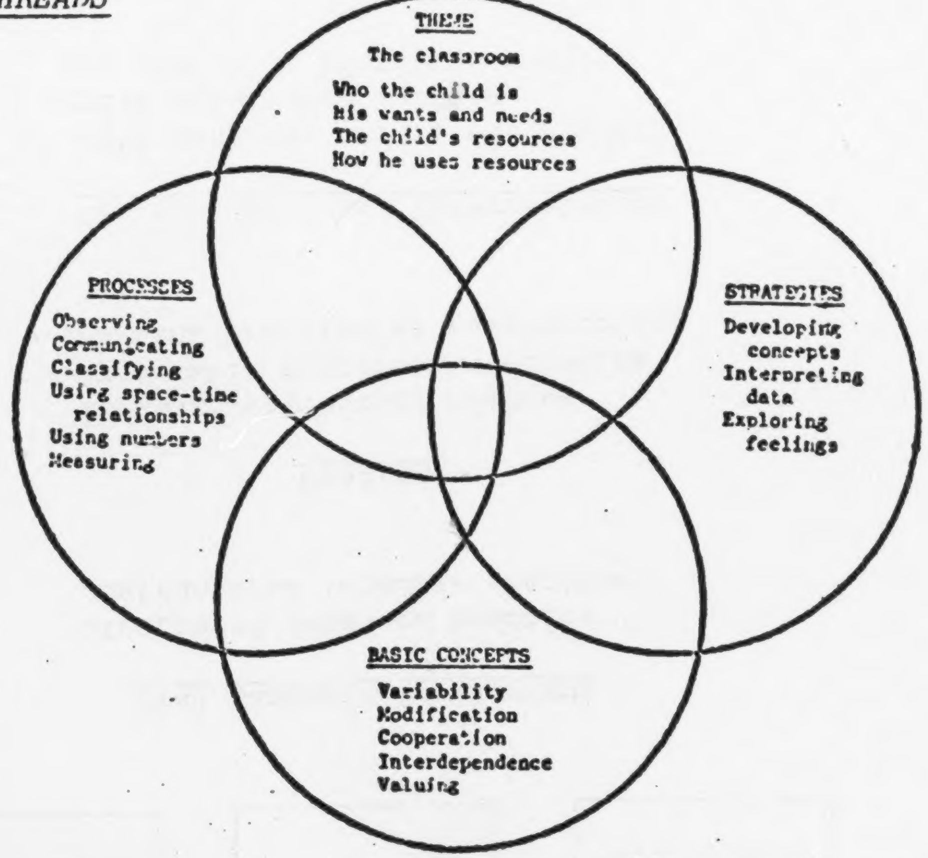
ORGANIZING THREADS

The instructional strands in the curricula kits are unified by four organizing threads: theme, basic concepts, processes, and strategies. There are four basic themes in the sixteen kits for Grade 1: classroom, family, school, and community. Spiraling questions guide the child in each thematic context.

The processes commonly associated with modern science programs are interwoven through all the instructional strands. These are: observing, using time/space relationships, classifying, using numbers, measuring, communicating, predicting, and inferring.

Strategies in "discovery learning" often associated with social science programs are also reflected in all the instructional strands. These are: concept development, interpretation of data, interpretation of feelings, attitudes, and values, and application of generalizations.

A limited number of high level abstractions, or basic concepts, such as variability, interdependence, conflict, and change, drawn from social science and science, form the basic conceptual framework of the total program.


THEME
The classroom
Who the child is
His wants and needs
The child's resources
How he uses resources
PROCESSES
Observing
Communicating
Classifying
Using space-time relationships
Using numbers
Measuring
STRATEGIES
Developing concepts
Interpreting data
Exploring feelings
BASIC CONCEPTS
Variability
Modification
Cooperation
Interdependence
Valuing

Themes:

such as classroom, family

Processes:

such as using time/space relationships

Strategies:

such as interpretation of feelings, attitudes, values

Basic Concepts:

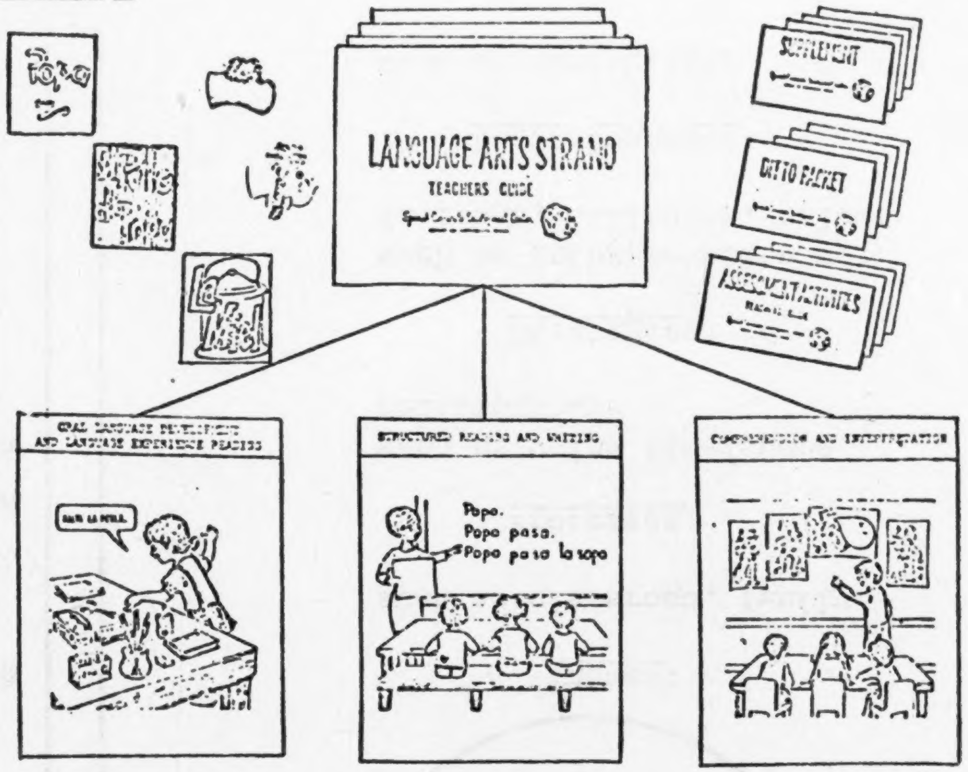
such as variability

LANGUAGE ARTS STRAND

The Language Arts-Vernacular Strand is designed to extend the language that Spanish-dominant children bring from their homes through structured and unstructured oral language experiences, at the same time recognizing and developing respect for regional dialects.

The strand also provides structured and unstructured reading experiences designed to develop systematically Spanish decoding skills, skills prerequisite to effective use of reading in the content areas, and habits and tastes in the reading of Spanish literary-type materials.

In each kit the activities are divided roughly into clusters in three, each cluster being planned for approximately sixty minutes of instruction. The first activity in each cluster focuses on oral language development and language experience reading. The second activity focuses on systematic treatment of the sound-symbol correspondences through the use of the chalkboard, pupils' books, and independent seatwork. The third activity presents orally a variety of folk tales and rhymes, and focuses on the development of skills of comprehension and interpretation on the oral level as well as in connection with the reading program.


LANGUAGE ARTS STRAND
TEACHERS GUIDE
SUPPLEMENT
DITTO PACKET
ASSESSMENT ACTIVITIES
ORAL LANGUAGE DEVELOPMENT AND LANGUAGE EXPERIENCE PRACTICE
STRUCTURED READING AND WRITING
COMPREHENSION AND INTERPRETATION
Popo.
Popo pasa.
Popo pasa la sopa

Oral Language Development

structured language practice
unstructured language practice

Reading

language experience reading
systematic practice in decoding
writing practice as reinforcement

Comprehension and Interpretation

with language experience reading
with structured reading
as part of a listening program

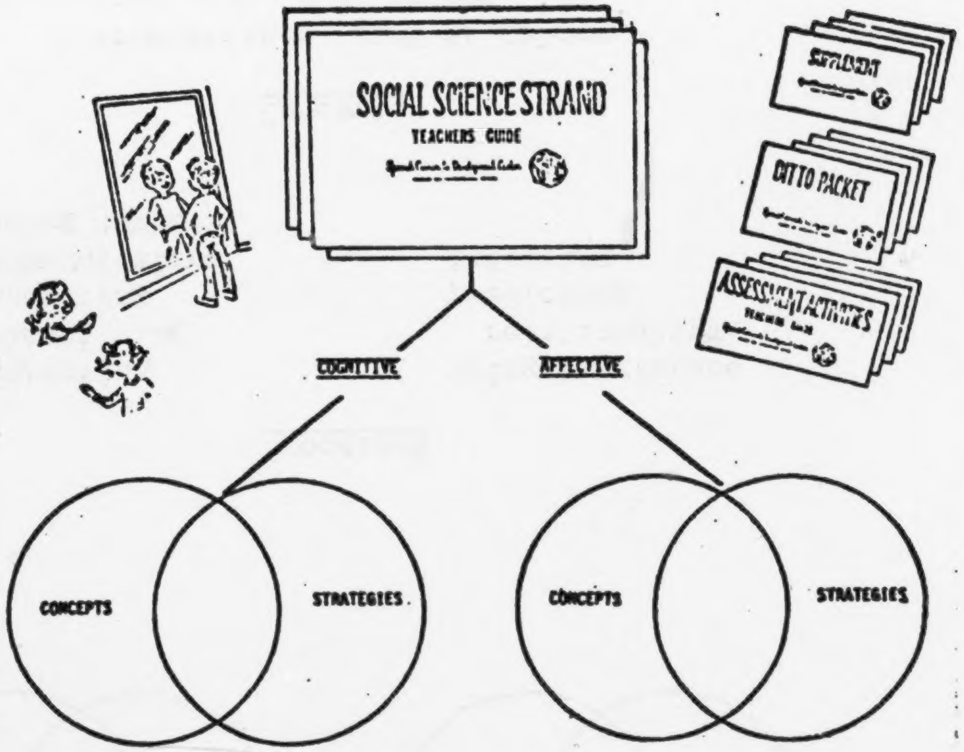
SOCIAL SCIENCE STRAND

The pupils' ability to understand their environment and in some measure influence it is a critical factor in developing success-oriented learners. From this premise, the Social Science Strand in each kit is designed to help pupils discover basic generalizations of the social sciences on an elementary level and to familiarize pupils with the process of inquiry so they may independently discover and order the rapidly changing world around them.

The high level abstractions which serve as organizing threads throughout the strand connect important generalizations, or basic concepts. Specific facts are presented as illustrations of basic concepts rather than as ends in themselves.

Concepts are revisited, resulting in a spiral development. This spiral is exemplified in the Grade 1 kits by the recurring questions: who the child is, what the wants and needs of the child are, what the resources of the child are, and how the child uses his resources, in each thematic context: classroom, family, school, community.

Each guide in the Social Science Strand contains ten activities, designed for approximately twenty minutes of instruction each.



Basic Concepts

variability
conflict
causality
cooperation
differences
societal control
interdependence
modification
power
change
tradition
valuing

Strategies

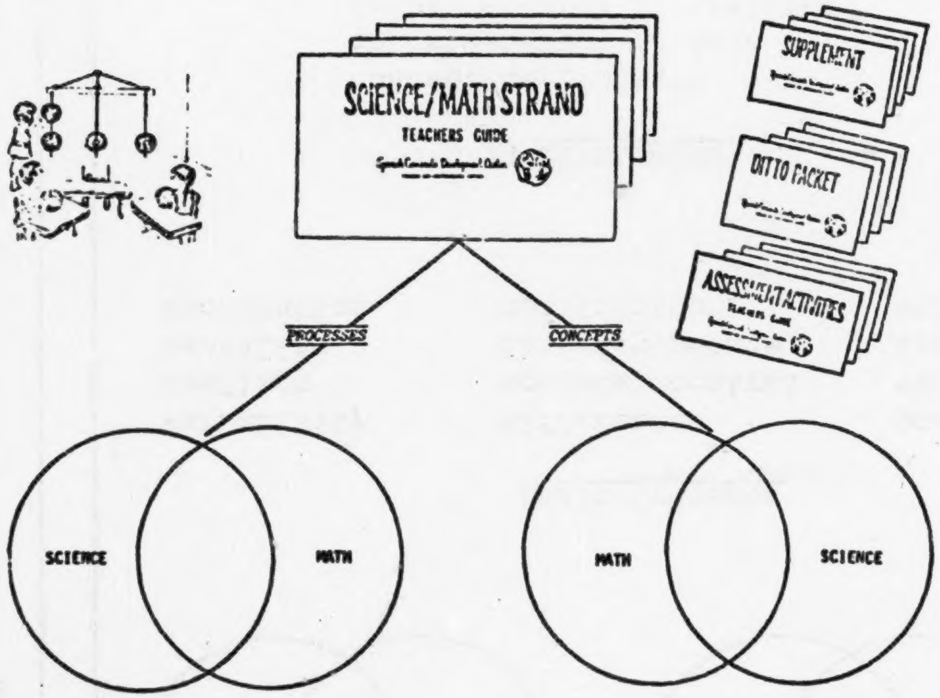
concept development
interpretation of data
interpretation of feelings,
attitudes, and values
application of generalizations

SCIENCE/MATHEMATICS STRAND

The Science/Mathematics Strand represents an attempt to blend two areas of study into an interdisciplinary program, each contributing to reinforce the other. The unifying elements are the basic processes common to both disciplines: observing, communicating, classifying, using time/space relationships, using numbers, measuring predicting, and inferring.

In the Science/Mathematics Strand, as in the Social Science Strand, specific facts and many concepts are presented as illustrations rather than ends in themselves. In this case they serve to develop the several processes enumerated previously. The conceptual content and learning behaviors of this strand, along with those of Social Science, form the conceptual foundation for all the strands in the Curricula Kit series.

Each guide in the Science/Mathematics Strand has twenty instructional activities, each planned for fifteen to twenty minutes of instruction. At appropriate points in each guide, review activities are provided to ensure needed reinforcement. The approach to these learning activities is pupil-centered, and provides abundant opportunities for doing as well as talking.



Processes

observing
classifying
measuring
communicating
using numbers

using time/space relationships
predicting
inferring

Concepts

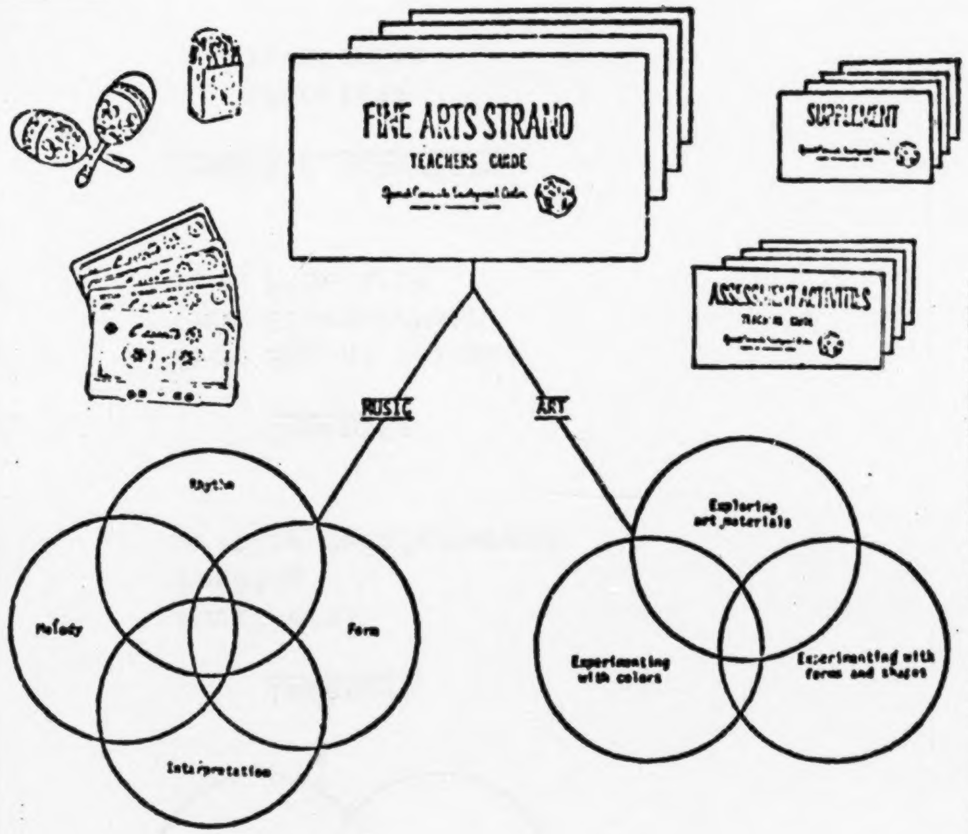
from science, such as colors
from math, such as set

FINE ARTS STRAND

The Fine Arts Strand is essentially a music program, designed to reflect a wide range of musical traditions. Many of the songs are of Hispanic-American origin, while others are of traditional international origin. However, the strand includes other dimensions, such as reinforcement of language arts through rhyme and dramatization, and reinforcement of the social science themes and concepts.

The music activities are usually eight in number, and are planned for twenty-minute periods of instruction. They focus on the basic music elements of rhythm, melody, form, and interpretation. The activities include experiences in music appreciation, singing, construction and use of simple musical instruments, rhythmic expression, creation of rhythms or movements in time with music, and simple folkloric dances.

In the initial kits, art activities are included in the Fine Arts Guide. These art activities are designed primarily to familiarize the pupils with the materials they will be using in art activities throughout the day. In subsequent kits, art is included functionally in the development of all the instructional strands.


FINE ARTS STRAND
TEACHERS GUIDE
SUPPLEMENT
ASSESSMENT ACTIVITIES
MUSIC
ART
Rhythm
Melody
Form
Interpretation
Exploring art materials
Experimenting with colors
Experimenting with forms and shapes

Music

Rhythm
Melody

Form
Interpretation

Concepts

from Language Arts
from Social Science

Learning Behaviors

processes
strategies

SPANISH - SECOND LANGUAGE STRAND

The Spanish as a Second Language Strand is designed to help provide the English-dominant child the Spanish structures and vocabulary he will need for effective communication in a bilingual environment. The activities are designed to help the child build concepts in his new language through formal and informal language experiences. Initially all of the activities are oral, but as the child becomes familiar with decoding in his own language, he is introduced to reading in Spanish.

In the development of activities, the Spanish as a Second Language Strand draws heavily on and thus reinforces basic concepts and learning behaviors which are presented in other strands. As the learner gains minimum control over structures and vocabulary which can be utilized for this purpose, the second language begins to provide the child with an additional medium for learning.

In the early kits, the Spanish as a Second Language Strand has ten activities in each guide, planned for twenty to thirty minutes of instruction. As the child is introduced to Spanish reading, additional activities are provided, but with a balance maintained in favor of oral language development before reading.

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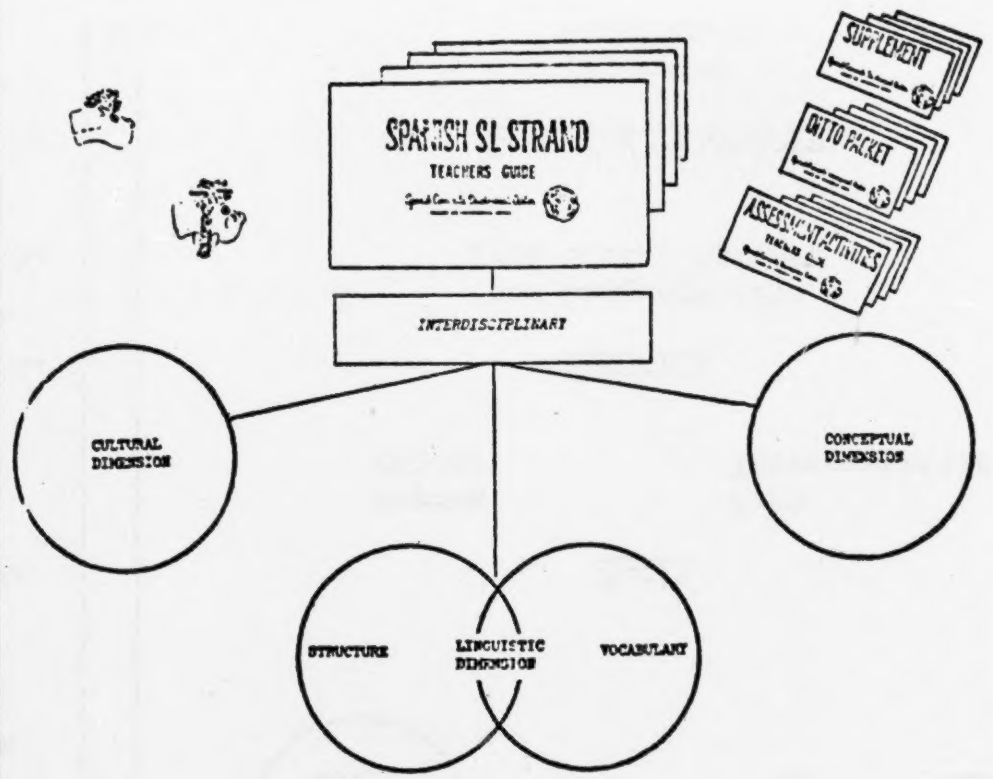

SPANISH SL STRAND
TEACHERS GUIDE
SUPPLEMENT
DITTO PACKET
ASSESSMENT ACTIVITIES
INTERDISCIPLINARY
CULTURAL DIMENSION
CONCEPTUAL DIMENSION
STRUCTURE
LINGUISTIC DIMENSION
VOCABULARY

Language

aural-oral
reading
writing reinforcement

Concepts

from Social Science
from Science/Math
from Fine Arts

Learning Behaviors

processes
strategies

ASSESSMENT ACTIVITIES

The Assessment Activities are designed to sample pupils' progress and to reinforce previous learning.

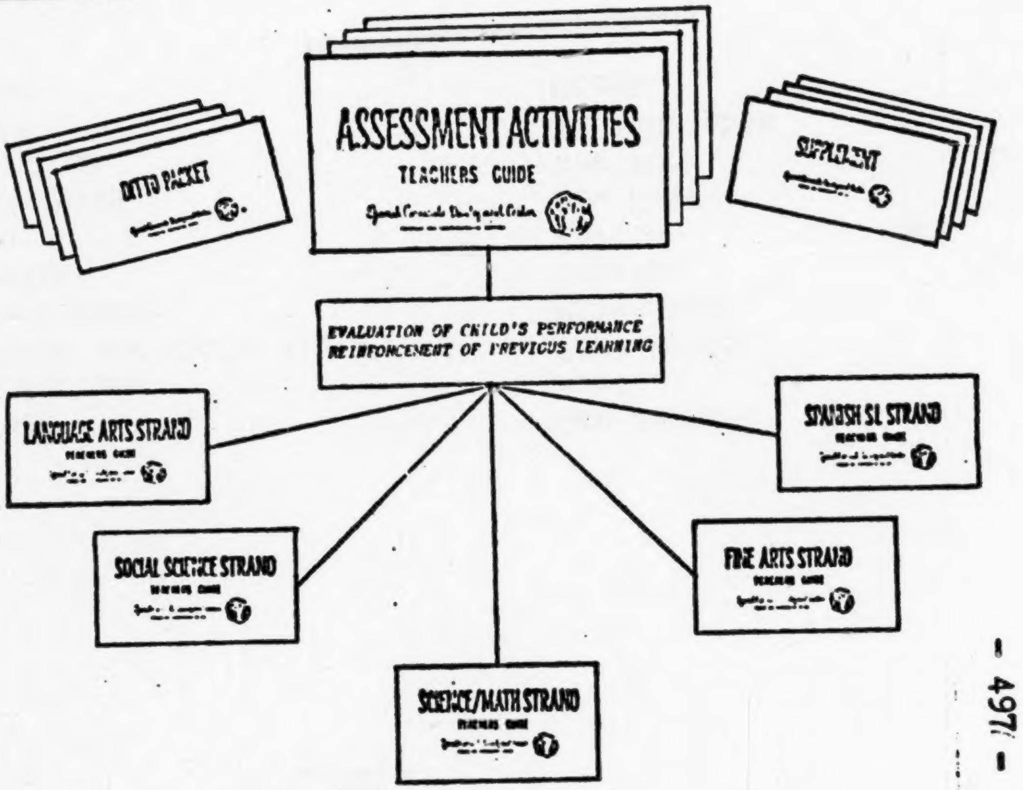
In Language Arts - Vernacular, the categories sampled are oral language development, language experience reading, sound and letter recognition, word recognition, reading by structures, and comprehension and interpretation skills.

In Social Science, the categories sampled are concepts from the affective domain and from the cognitive domain, as well as the learning strategies characteristic of discovery learning.

In Science/Mathematics, the categories sampled are concepts from science, concepts from mathematics, and the processes common to both disciplines.

In Fine Arts, the categories sampled are the recognition of musical elements: rhythm, form, melody and interpretation, and the production of music: singing and playing rhythm instruments.

In Spanish as a Second Language, the categories sampled are first structure and vocabulary. As the new language becomes a tool, cultural and conceptual content are also tested.


DITTO PACKET
ASSESSMENT ACTIVITIES
TEACHERS GUIDE
SUPPLEMENT
EVALUATION OF CHILD'S PERFORMANCE
REINFORCEMENT OF PREVIOUS LEARNING
LANGUAGE ARTS STRAND
SOCIAL SCIENCE STRAND
SCIENCE/MATH STRAND
FINE ARTS STRAND
SPANISH SL STRAND

Language Arts

oral language
reading
comprehension
interpretation

Spanish SL

structure
vocabulary
culture
concepts

Social Science

concepts
strategies

Fine Arts

recognition
production

Science/Math

concepts
processes

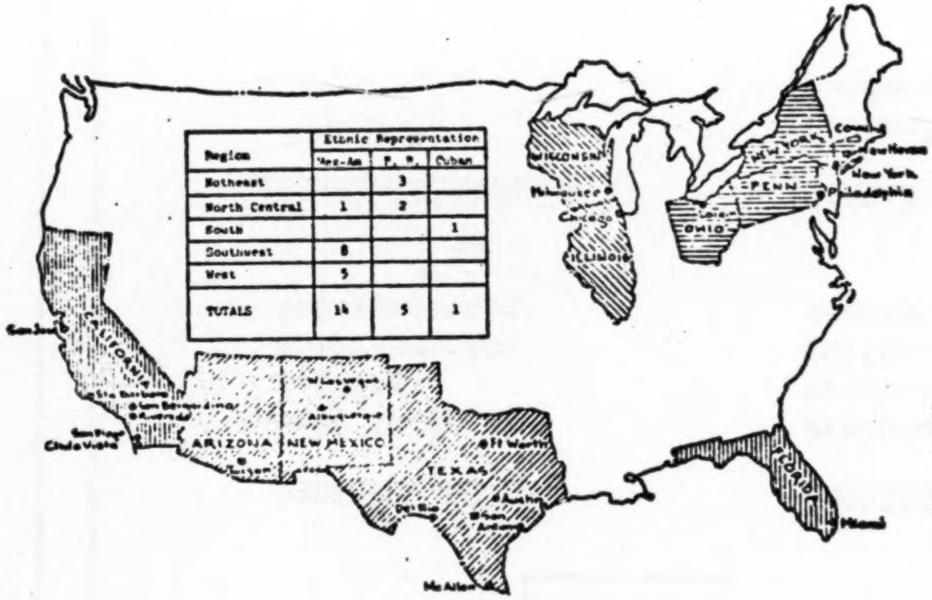
PILOTING, FIELD TESTING

As the kits are produced, activities are piloted in local schools cooperating with the production teams. Either the writer or the classroom teacher may carry out the activity, the other serving as observer. Based on this experience, activities are modified, edited, and sent out to field trial centers.

The field trial centers are of two types, formal and informal. No regular visits are made to the informal centers by SCDC staff. To the twenty formal centers, four visits are made during the year. The visits provide opportunity to give orientation on the several strands in each unit of four kits, and opportunity to clarify doubts and receive preliminary reactions leading toward kit revision. The visits also provide opportunity to visit classrooms and gather direct impressions of teachers on strengths and weaknesses of kits which have already been used. And equally important, the visits provide the machinery through which the production team's associates assist local and Miami evaluation personnel in collecting data on the conditions under which the material is used and the results achieved under those conditions.

Approximately 150 teachers and 4,000 pupils are anticipated in field testing during 1971-72.

FORMAL FIELD TRIAL CENTERS


CALIFORNIA
ARIZONA
NEW MEXICO
TEXAS
WISCONSIN
ILLINOIS
OHIO
PENN
NEW YORK
FLORIDA
San José
San Diego
Chula Vista
Albuquerque
Fort Worth
McAllen
Milwaukee
Chicago
Lorain
New Haven
New York
Philadelphia
Miami

Region	Ethnic Representation		
	Mex-Am	P. R.	Cuban
Notheast		3	
North Central	1	2	
South			1
Southwest	8		
West	5		
TOTALS	14	5	1

San José	San Antonio
Santa Bárbara	Austin
San Diego and Chula Vista	Fort Worth
San Bernardino	Milwaukee
Riverside	Chicago
Tucson	Lorain
W. Las Vegas	New Haven
Albuquerque	New York
Del Río	Philadelphia
McAllen	Miami

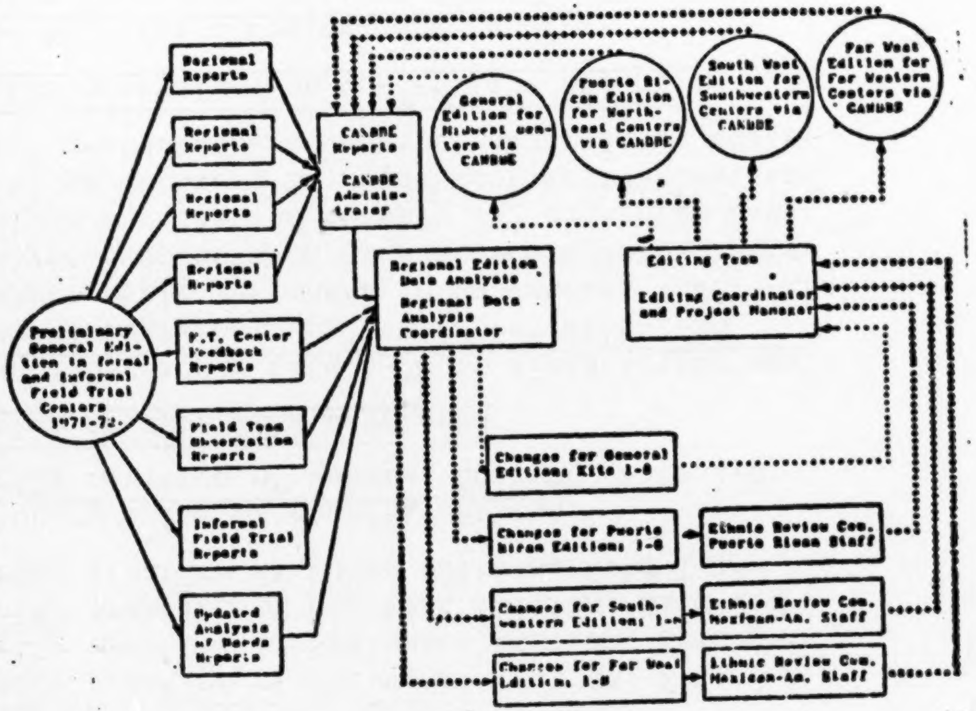
REVISION, REGIONAL EDITIONS

In keeping with the Center's commitment to produce materials which will be responsive to local needs, the revision after the first year's field trial will be a process of converting the preliminary edition into regional editions. The result will be a Far West Edition reflecting feedback primarily from California, a Southwest Edition reflecting feedback from Texas, New Mexico, and Arizona, a Puerto Rican Edition reflecting feedback from the Northeast, and a revised General Edition reflecting feedback from the mixed populations in the Midwest.

The revision plan provides for primary input to be collected through the resources of CANBBE and from the Center's own feedback process as it interacts with the field trial centers. The data will be analyzed and proposals for changes for each edition reviewed by an appropriate ethnic review committee within the Center. Changes within the commitments and resources of the Center will then be made by the editing team and the new editions channeled back into the field trial centers for further use.

In addition to the regional editions mentioned above, the Center will develop a Cuban Edition for use in areas in which Cuban-background pupils are the dominant Spanish-speaking group to be served.

FLOW IN DEVELOPMENT OF REGIONAL EDITIONS


Preliminary General Edition in formal and informal Field Trial Centers 1971-72.
Regional Reports
Regional Reports
Regional Reports
Regional Reports
F.T. Center Feedback Reports
Field Team Observation Reports
Informal Field Trial Reports
Updated Analysis of Needs Reports
CANBBE Reports
CANBBE Administrator
Regional Edition Data Analysis
Regional Data Analysis Coordinator
General Edition for Midwest centers via CANBBE
Puerto Rican Edition for Northeast Centers via CANBBE
South West Edition for Southwestern Centers via CANBBE
Far West Edition for Far Western Centers via CANBBE
Editing Team
Editing Coordinator and Project Manager
Changes for General Edition: Kits 1-8
Changes for Puerto Rican Edition: 1-8
Changes for Southwestern Edition: 1-8
Changes for Far West Edition: 1-8
Ethnic Review Com. Puerto Rican Staff
Ethnic Review Com. Mexican-Am. Staff
Ethnic Review Com. Mexican-Am. Staff

EXTERNAL INPUTS

from Curriculum Adaptation Network (CANBBE)
from special consultants
from formal field trial centers
from informal field trial centers

INTERNAL INPUTS

from direct observation by SCDC staff
from updated analysis of needs
from recommendations of ethnic review committees

PROJECT EVALUATION

Evaluation in the Spanish Curricula Development Center has fundamentally an internal function and is not responsible for determining quality of instruction in local projects cooperating with the Center.

Evaluation of the materials development process involves four objectives: monitoring the production of Kits 9-24, monitoring the field testing of Kits 1-16, monitoring the production of regional editions and monitoring production of the revised general edition. The monitoring and verification activities which proved functional during the first year will be utilized in 1971-72 to achieve these objectives.

Evaluation of the materials developed involves one objective aimed at determining the effectiveness of the materials as used under various conditions. Three field testing situations which represent optimal utilization of the Curricula Kits with the three target ethnic groups (Mexican-American, Puerto Rican, Cuban) will be selected in order to attain this objective.

The production of evaluation designs and reports also involves one objective. This dimension is an essential ingredient within the process of providing formative and summative evaluation for the Center.

- Evaluation of materials development process
  - Monitor the production of Curricula Kits 9-24
    - Verify the collection of information
    - Verify the establishment of detailed projections
    - Verify the creation of Kits 9-24
    - Verify the piloting of Kits 9-24
    - Verify the revision of Kits 9-24, from piloting
  - Monitor field testing of Curricula Kits 1-16
    - Verify in-service orientation to field centers
    - Verify acquisition of feedback
    - Verify direct observation of classrooms
    - Produce general achievement tests for Kits 1-16
    - Analyze pupil responses on general achievement tests and in assessment activities, Kits 1-16
  - Monitor production of regional editions
    - Verify creation of Northeast Edition, Kits 1-8
    - Verify creation of Southwest Edition, Kits 1-8
    - Verify creation of Far West Edition, Kits 1-8
    - Verify creation of Cuban edition, Kits 1-16
  - Monitor revision of general edition
    - Verify revision of General Edition, Kits 1-8
- Evaluation of materials developed
  - Evaluate Curricula Kits 1-16 in field situations
    - Analyze classroom utilization of Kits 1-16
    - Analyze pupil responses in Assessment Activities
    - Analyze responses on general achievement tests
    - Analyze correlation between (a) classroom use, (b) performance in Assessment Activities, and (c) performance on general achievement tests
- Production of evaluation designs and reports
  - Create Evaluation Designs and reports
    - Revise Evaluation Designs for 1971-72
    - Write Interim Evaluation Report for 1971-72
    - Write Evaluation Design for 1972-73
    - Write Final Evaluation Report for 1971-72

INITIAL READING IN SPANISH FOR BILINGUALS

by

Charles H. Herbert, Jr.
Ph.D.

September, 1971

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INITIAL READING IN SPANISH FOR BILINGUALS

For the most part, Title VII programs funded through the Bilingual Office Branch of the U.S. Office of Education focus on development of oral language in children that are served by these programs. Oral language development also is the aim of many other programs for foreign language speaking or non-standard English-speaking children. There are, of course, programs that undertake to teach children to read as well as to develop their oral facility with language. In many cases these programs involve the teaching of reading in English. A number of programs are also in the process of developing reading programs in Spanish,

In an informal series of discussions regarding the teaching of reading in Spanish it was found that relatively little was known about the teaching of reading in Spanish to the Spanish-speaking child, or of the process of transferring reading skills from Spanish to English. As a result of these discussions, and with the encouragement of the Bilingual Branch of the U.S. Office of Education, the project "Initial Reading in Spanish" came into being. The main emphasis of the project was to produce a detailed, descriptive analysis of procedures used to teach Spanish-speaking children to read in their native tongue.

Preliminary investigations into reading programs in the United States revealed that Spanish-speaking children were being taught to read English as well as Spanish utilizing the same procedures that are employed to teach monolingual English speakers to read their native tongue. Many methods in the teaching of literacy in English include ingenious and complex devices to show the underlying system in a written language that is intricate and often times irregular. The Spanish writing system, on the other hand, has a relatively uncomplicated phoneme-grapheme correspondence with few irregularities. It seems then that many of the methodologies employed to teach literacy in English do not apply to the teaching of that skill in Spanish.

Where does one go to learn methodologies and materials used in effective teaching of literacy in Spanish? What better place than a Spanish-speaking country itself. Mexico, being geographically near and having an education system which responded to initial inquiries enthusiastically, was selected as the site for some preliminary field study of the reading process in Spanish as taught to Spanish-speaking natives. Through the Ministry of Education in Mexico City, arrangements were made to visit a number of schools in which initial reading was being taught to Spanish speakers. A number of classrooms were visited in order to give a generous sampling of procedures used by different teachers. Videotapes were made in each of the selected classes so that a permanent record would be available for reference and study.

Examination of the videotapes revealed the following generalities about the process used by most Mexican teachers observed.

1. A phonic method was used in which children were taught to sound out individual letters in order to decipher words from the printed page. In some cases letter names were used to identify the letters of the alphabet. Some teachers preferred to refer to the letters of the alphabet by their "sound names". The letter "s" was referred to with a syllabant, hissing sound, the letter "d" with the sound "duh", and so forth.
2. Since almost all of the teachers used the textbooks provided by the federal government, the sequence of presentation of vowels and

consonants differed very little. Vowels were introduced initially starting with "o", continuing to "a", "e", "i", and "u". In order that these vowels might be presented in whole words, the consonants "s", "d", "l" and "t" were introduced in the first few lessons. Two or three lessons were spent teaching single words, but the teachers rapidly moved to the presentation of short phrases or sentences in order to teach new letters. In effect, then, children were reading short stories made up of four or five three-word phrases within a week or two from the beginning of reading instruction.

3. Vowel and consonant presentation is normally limited to one vowel or one consonant per lesson. In later lessons several consonants are presented in the same lesson. Apparently, teachers and textbook writers feel that the alphabetic principle has been established in earlier lessons and that children are ready to learn more than one letter at a time.
4. Vowel-consonant clusters are presented in later lessons after all letters of the alphabet have been introduced. The consonant clusters "cr", "gl" and so forth, are normally introduced in combination with the five vowels. A reading is then given in which these clusters appear in combination with the vowels in order that students might practice reading them.
5. An important phase of the instruction is the practice of writing and printing the letters that have been learned in the reading lesson. The reading books used in the Mexican schools incorporate this procedure. There are pages provided facing the reading page on which the students can practice writing and printing the letters

that have been introduced on the previous page. A good deal of time is devoted to this practice. Both work on the board and at individual desks provide opportunities for students to practice their writing and printing skills. It should be pointed out that Mexican students learn cursive and manuscript writing concurrently. Children in the observed classes learned to print and write both upper and lower case letters in the same lesson.

6. In all classrooms the instruction was carried on using the entire group of 40 to 50 children . There were no instances observed of individual reading instruction or of small group reading classes.

7. Student responses were mostly given in choral repetition in the large group. Children often read together as a total class, wrote from dictation given by the teacher and responded en masse to the teacher's questions. In some instances, teachers called children to the front of the room or had them stand at their desks to read aloud to the rest of the class.

   Although the large group instruction sounds formal, there appeared to be an interesting and warm interaction between the teachers and students in Mexican schools. The noise level in such classes was high, but it appeared to be a happy noise or at least one that was generated by work and interested interaction. Teachers readily accepted comments and questions from pupils, although the questions may have been irrelevant or at least an aside from the work at hand. Often, when a single child was called upon to read or perform at the blackboard, the rest of the class was busy performing the same work at their desks or coaching aloud the student at the board.

8. Because of the emphasis on writing in the reading classes, students

accumulate a large number of worksheets and papers. The Mexican schools put these papers to an interesting use. At the end of the year, the worksheets and papers that students have accumulated are bound into a large book which then becomes the property of the student. According to the teachers who were interviewed, the book serves as a review reader for the student, and in several cases, serves to teach others in the same family to read at home.

The aforementioned description of the reading process employed in Mexican schools is a generalized one. There were, of course, variations from this generalization. For example, a school in Mexico City identified as an experimental school was using Gategno's words in color to teach reading. Another class in the same school was studying a variation of a structural grammar. In other schools, a type of language-experience program was being utilized to teach reading. One set of videotapes recorded in Mexico City presents an entire method, with demonstrations by several teachers, of a syllable based phonic reading program. In all of the reading programs mentioned above, much attention is paid to the traditional phonic reading program. This is the way that reading has been taught in Mexico and any new methods seem to refer back to the phonic method. This is also understandable since the Spanish graphic system is a fairly regular one, thereby making it more feasible than English to sound out words.

There was one variable that could not be considered in the investigation of initial reading in Spanish in Mexico; that variable was the student's language. In Mexico, all of the students were monolingual Spanish-speaking children. For our purposes and for the application of the reading techniques that we had discovered in Mexico, it was necessary to consider the language and abilities of children who were bilingual, English-Spanish speakers.

For this reason the initial reading in Spanish for the bilingual program was conceived. The idea behind the program was to teach bilingual English-Spanish speaking children to read in Spanish, utilizing the same methods, materials and other devices that were used by teachers in Mexico. The project was designed so that it could accumulate information regarding the teaching of initial reading in Spanish in a systematic fashion. The information was to be taken from observation reports, teachers' lesson plans, anecdotal records and analyses of the teaching practices used by the native Spanish-speaking, foreign-trained teachers of initial reading in Spanish. The project was sponsored by a grant from the United States Office of Education under funds from the Title VII Bilingual Program Branch. Four field sites were selected at which the project teachers would carry out their instruction. The children to be included in the classes were to be fluent speakers of Spanish who were entering public school as first grade students. The project was hosted by the Houston Independent School District with the first of the sites located in that city in a predominantly Mexican-American neighborhood. The other sites were in the cities of San Antonio, Alice, and Abernathy, Texas. Some of the children in the study were to be regular members of a bilingual education program while others would receive no extraordinary instruction other than initial reading in Spanish.

Since collecting information was the primary goal of the project, several forms were developed to standardize the procedures for data collection. The first of these, the observation form, was used by the observer-recorder who sat daily in the classroom as the initial reading in Spanish instruction was carried out. The observer-recorder's observations were guided by the categories contained on the observation form. These categories included: (1) "object naming," in which the recorder would write any nouns that were given special emphasis or explanation in the classroom; (2) "question words," in which interrogatives were recorded; (3) "gender and number influence on verbs," in which verb endings were recorded; (4) "object description," in which adjectives were listed; (5) "words that indicate position or direction," a category in which function words were recorded. From these categories a vocabulary list was composed at the end of the project. The list is basically one that contains all of the words that were given special emphasis in the classes and an indication of their frequency on a scale from one to five.

In addition to these categories, the observation form contained sections where information regarding the types of exercises or activities could be recorded. The additional categories of words with multiple meanings and idiomatic speech allowed the observer-recorder to preserve the occurrence of such language usage. The observation forms were filled out daily in each of the classes. The final report of the project contains lists of each of these categories taken from the observation forms from each of the sites. An interesting portion of the final report is that of the pupil-teacher dialectal differences. A list of the conflicts between the language used by the teachers in the classroom and that of the students was recorded. These dialectal differences include slang, local substitute words or synonyms for standard items.

The remaining dialectal differences that were reported can be classified into the following four groups: (1) archaic forms--words carried down from old Spanish which because of the isolation of Mexican-Americans from other Spanish-speaking people have remained in use; (2) anglicisms--words taken from English and adapted to Spanish wherever there was a need for the word; (3) interchanged letters--words in which certain letters have been used in the wrong order or position and (4) pronunciation errors made because of the substitution for the letters "f", "h", and "j".

Dialectal differences also are accumulated in the final report in the form of a word list that separates the differences according to frequency, and identifies them as to the site or sites at which the forms were used.

Another form was used to record pupil pronunciation errors. In this case, the error was one produced when a child attempted to read a word from the text or materials supplied by the teacher. In general, the kinds of pronunciation errors that were observed reflected some of the dialectal differences that were reported previously. The final report presents these pronunciation errors in a list that is coded according to frequency and geographic location as to where the pronunciation errors occurred.

A complete description of the materials that were used in the project is also contained in the final report. The basic texts are listed and described in terms of their use in the classroom. The Mexican reading teachers were permitted complete freedom in the selection of textbooks. At the initial meeting with the teachers at the beginning of the year, the teachers as a group agreed that they would like to use the same textbooks furnished them by the federal government in Mexico. Because of the fact that these texts are not readily available in the United States through import, an alternate set of texts were selected. The textbooks which they selected were very similar in format to those published by the federal government in Mexico. The three basic books used by all four teachers were: Mi Libro Magico, a basic reader with provision for writing and printing practice; Mis Primeras Letras, a supplementary practice book and reader; and Felicidad, a reader and book of activities. Some supplementary books also were selected, as well as a small library of readers or read to books. A detailed list of these books as well as their sources is listed in the final report of the project.

Care was taken to preserve all of the games, rhymes, songs, stories, and other devices used by the teachers in their classes. In the case of games, the name and the rules for playing the game are given in the final report. Rhymes and their use also are given in the report and listed in an index. Songs, for the most part, are referred to by name with the verse occasionally given if the song is not generally known.

Each teacher was requested to submit lesson plans weekly, samples and summaries of which are reproduced in the final report of the project. Some evaluations of materials and description of specially-made materials also are included in the teachers' reports. The teachers employed a large number of specially prepared forms and charts. A description of these and their texts are supplied in the teachers' reports.

One appendix of the final report summarizes the sequence of presentation of letters of the alphabet. The reports of the observer-recorders contain anecdotal records of the presentation of the letters by the teachers at the different sites. When a teacher employed specific and unique methods to teach the formation of vowels or consonants, it was reported in detail in the observer-recorder reports. The final report contains the rhymes, special instruction or games used in the teaching of the letter shapes.

Because the use of children's writing was so extensive, samples of children's handwriting are also included in the final report. Observers of the videotapes and samples often are impressed by the quality of the children's handwriting, particularly the examples of cursive writing, since children in the United States normally are not taught cursive forms until the third grade. The samples of the children's writing taken from the Texas classrooms compares favorably with the samples shown on the videotapes recorded in Mexico City.

Summary Analysis of Teaching

Classes began in most of the sites in September of 1970. The general pattern for class organization and teaching sequences was similar at each of the sites. This was to be expected, since all four of the teachers had been trained in Mexico in similar teacher-training institutions. At each site, an initial period varying from a few days to two weeks was used to accomplish some pre-reading practice. Teachers used songs, games and other instructional materials during this period.

Extensive videotaping also was done in the four classrooms in Texas. This technique permitted re-examination of a class session and has also allowed us to preserve examples of the teachers' work. These videotapes have been assembled into eight videotapes of approximately 15 to 30 minutes each in length. Each of the tapes shows samples of a specific technique or techniques employed by teachers in the Texas project. One tape, for example, presents several different class sessions in which the teachers are using writing as a reinforcement for reading practice. Another shows teachers using reading charts to teach children to read sentences in sequence to form a logical paragraph. Duplicates of these tapes are available to interested educational agencies.

The following summary is a compilation of the largest section of the report in which the teaching methodologies used in the Texas classrooms are described.

1. When actual reading instruction began, all teachers taught vowels first. The teachers all used a phonic method to introduce the vowels. Rhymes were used as mnemonic devices to help children

associate the sound of the letter with its graphic symbol. Like the teachers in the Mexico City classrooms, the Texas teachers referred to the letters of the alphabet by their sounds.

2. Consonants were then taught until the entire alphabet had been presented, using the sound of each letter to identify it, rather than a letter name. This practice was common to all the teachers. Needless to say, vowels and consonants were not introduced in the same order at each site. There was, however, a general consensus among the teachers for sequence of individual letter presentation which reflected the teachers' preference for the State textbooks in Mexico. The pattern consisted of presenting the vowel sounds as quickly as possible, followed by presentation of some consonant sounds and letters to make up simple sentences that the children could read. The teachers paid careful attention so that each child produced the sound of each letter as it was introduced. The reading "lesson" consisted of presenting the word oso and teaching the children the identification of that letter form with its sound. Other words were introduced which contained the new letter in the initial position.
3. The teachers generally focused on the practice of sounding out words letter by letter. When children hesitated or stumbled in reading, the teacher would help them sound out each letter of the word, and then blend those letters into the pronunciation of the word in question. One of the teachers used the practice of multiple repetitions of a word so that children could memorize its pronunciation. This amounted to rote learning. The practice, however, was limited to one classroom of the four and did not seem to be a general practice

used by Mexican teachers. Drill on individual words or letters usually was accomplished through games, songs and repetition. Whole class participation, however, was the most commonly used mode of classroom instruction.

4. Much of the work in these games, songs and repetitive drills was done using the entire class in a choral repetition. Individual children were called upon to point out letters as the class sounded out the words. Children often were called to the front of the room to point to a letter or a sentence on a chart.

5. The use of writing as a reinforcement of reading instruction was one of the most singularly outstanding practices in the program. Pre-reading instruction included practice in the basic movements needed for handwriting. This involved large motor movement practice usually accomplished at individual desks. The students were asked to write letters in the air or on their desk tops, using their finger tips. Some of the other practices included writing at the board, usually by one child, while the rest of the class practiced the movements in the air or on their desk tops.

   Group handwriting practice began with the first letters and words that were introduced for reading. The children were provided practice sheets on which to copy words and letters from the board or from their reading lessons. From the beginning, both manuscript and cursive forms of upper and lower case letters were presented simultaneously and then practiced by the students. The children progressed from writing single letters to words, phrases and sentences as the reading material in the lessons became more complex. The teachers used dictation frequently to vary the handwriting skill. Dictation most often was based on familiar sentences that had been previously presented in the reading lessons.

6. The sequence of vowel presentation and consonant presentation differed from classroom to classroom. The general procedure, however, was much the same; the teachers introduced vowels early in the reading instruction, then proceeded to present one new consonant per reading lesson. All the teachers proceeded from single letter introduction to syllables and then to reading words and eventually whole phrases or sentences.

The reading and instructional materials used were selected by the teachers themselves. Their only limitation was the availability of materials. For this reason, the materials used at the four sites were not duplicates of the materials used in the first grade in Mexico. The Mexican federal texts are not available for importation to the United States. Each of the teachers had brought materials with them that they had previously used in Mexico. These materials, particularly the teacher's guides, helped them to establish the sequence of presentation of reading material. The books that they did use were rearranged somewhat so that the order of the lessons coincided fairly closely with the order as seen in the Mexican federal textbooks. The final report includes several indices and charts showing the order in which vowels, consonants, phrases and whole sentences were presented by the teachers.

7. The teachers made extensive use of printed materials for display. Some had brought with them large charts which duplicated whole pages in an enlarged form for presentation to the whole class. All of the teachers prepared supplementary ditto sheets for practice in

reading and writing. These were sometimes pages taken from other texts, and at other times were teacher-made lessons. The chalkboard was used extensively to present written stories for choral reading and for children to practice writing words and sentences that appeared in the reading lessons. Chart and flannel board pictures frequently were used by the teachers for both reading practice and language or concept development. The teachers indicated that the lack of Spanish language development in their American students was one of the basic differences between their classes in Mexico and those that they taught in the United States. The teachers all felt that the bilingual youngsters in their classes had, in general, limited Spanish speaking ability. For this reason, the teachers moved at a slower pace, spending more time on developing oral language than they would have with monolingual Spanish speaking children. The oral language practice was, for the most part, concept or vocabulary development.

8. An interesting phenomenon observed incidentally in the classes was that of the interaction between the students and teachers. In general, the classes seemed noiser than one would expect an American schoolroom to be. Although the class was conducted as a total group learning together rather than in small groups, the teachers seemed, for the most part, permissive in their control of movement about the room and particularly of talking by the students. They readily accepted correct, incorrect and sometimes irrelevant questions or responses from students. The children appeared free to ask questions or make comments during any part of the reading lesson. In some of the classes, students moved freely from their

seats to the teacher, who was standing at the front of the room addressing the class, and after asking a question or making a comment or showing a paper to the teacher, would move back to their seats again and the lesson would continue.

9. Aside from the extensive descriptive analysis resulting from the Initial Reading Program in Spanish, an evaluation was made of the students' progress in learning to read both Spanish and English. The English reading was generally delayed, except in cases where parents or school personnel objected. The evaluation and comparison of reading progress by students in and between the sites was difficult, because of differences in socioeconomic status as well as the distances between the project sites. The sample differences between the various classrooms and the variations in the population densities of the four sites presented further difficulties. Because of these difficulties of across-site evaluation, the general feeling of the evaluator was that the within-site evaluations offer the best probability for interpretation of success of the students in reading. A test was developed to evaluate the Spanish reading progress of the students at all the sites. The results show that the children did indeed learn to read Spanish at a level that was somewhat above average. The conclusion was that their progress in Spanish reading was slightly better than normal progress, with one site showing extremely good progress.

Achievement in reading English was also shown. Only three sites reported on this phase. In one, the children in the initial Spanish reading project learned to read English as well as the control group. In addition, they learned to read Spanish. At the two other sites, however, the English achievement of the students was somewhat below that of their control group counterparts. The results also established that learning to read in Spanish was related significantly to the ability to learn to read English.

The final report contains the statistical data from various tests and evaluations that were administered in the program. In summary, the results are basically these:

1. The children who scored significantly higher on the Spanish reading test were students participating in both a bilingual education program and the Spanish reading program. Apparently the combination of the two programs resulted in the highest degree of Spanish reading ability. There are many variables to consider in a study, such as ability, socioeconomic status, and educational opportunity. The fact that the other three sites were statistically alike, however, leads to an assumption that the children's success can be attributable to the combination of the bilingual program and the Spanish reading program.
2. In two of the three sites, the control groups had significantly higher English reading ability than did the Spanish reading students. This would seem to indicate that reading ability at this level is a function of the time spent in practice. The control groups did spend more time learning to read English than did the Spanish reading program children. At one site there was no statistical difference, which would lead to support of the theory that children experiencing early success in their reading will make a

significant transfer of those skills to reading in another language.

3. There were significant differences in the English scores from one site to another. The statistics indicate that the one group showing the lower scores were perhaps of slightly lower ability. It also should be pointed out that the teacher at that particular site was the least secure of the four, and relied heavily on rote learning to teach reading.

4. An attempt was made to get an overview of all the reading groups on both English and Spanish tests. The overview indicated there was little difference in the various performances on both tests. This would seem to support the position that the children in the project did learn both English and Spanish reading. A final analysis was made of the relationship between the Spanish reading test scores and the English reading scores. There were strong relationships found which would indicate once again that there are individual differences among children, and those who scored high on the Spanish tests, also scored high on the English test.

The evaluation report contained in the final project report goes into detail concerning the relationships and results reported above. Interpretation of the results, of course, must be cautious. In a program such as the one that I have described, it is extremely difficult to control the many variables. The interpretations given here and in the report are presented, not as truths, but as stimuli for further investigation.

Enough was found in this project, of both a descriptive and inferential nature, to bring about greater insights into the teaching and learning process as it relates to Spanish speaking bilingual children. It is hoped that the knowledge and information gained through the Initial Spanish Reading Project and contained in the final report and the videotapes will stimulate further investigation into what is most certainly an essential area of instruction for bilingual children.

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